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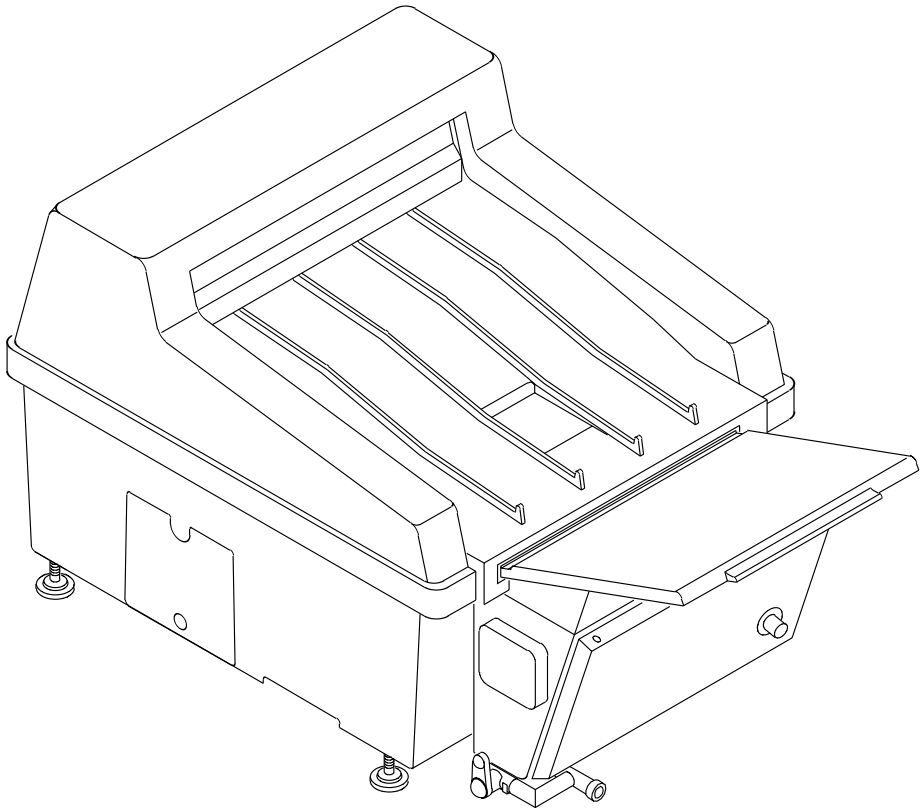
15JUN98

SERVICE MANUAL
for the
Kodak X-Omat 1000, 1000A and 1000J PROCESSOR
Service Code: 3482

Important
Qualified service personnel must do these procedures.



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HEALTH IMAGING

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This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

Table of Contents

Description	Page
Safety	5
Illustrated Parts List	6
DEVELOPER RACK	6
FIXER RACK	8
WASH RACK	10
DRYER RACK	12
PROCESSOR BASE for 1000A PROCESSOR - Serial No. 0 - 482 and 1000 PROCESSOR - Serial No. 0 - 1242	14
PROCESSOR BASE for 1000A PROCESSOR - Serial No. 483 and above and 1000 PROCESSOR - Serial No. 1243 and above	18
CROSSOVER	21
TOP COVER	22
DRYER BRACKET KIT	23
FEED TRAY and CONTROL BOX	24
PROCESSOR TANK SECTION for 1000A PROCESSOR - Serial No. 0 - 482 and 1000 PROCESSOR - Serial No. 0 - 1242	26
PROCESSOR TANK SECTION for 1000A PROCESSOR - Serial No. 483 and above and 1000 PROCESSOR - Serial No. 1243 and above	30
Numerical Index	33
Alphabetical Index	39
Adjustments	45
Adjusting the Squareness of the RACK AY	45
Adjusting the Squareness of the DRYER RACK	46
Adjusting the Tension of the DRIVE CHAIN	47
Setting the Defaults of the SWITCHES	48
Adjusting the Developer Temperature	49
Adjusting the Developer and Fixer Replenishment Rates	50
Setting the "Regular" Replenishment Mode	51
Setting the "Flooded" Replenishment Mode	51
Adjusting the Temperature of the DRYER	52
Adjusting the Speed of the DRYER BLOWER	52
Replacements	53
Removing the CONTROL BOX COVER	53
Opening the PROCESSOR	54
Disconnecting the HOSES	56
Removing the DRYER	57
Removing the DRYER THERMOSTAT	58
Removing the DRYER BLOWER	59
Removing the DRYER HEATER	59

Removing the I/O BOARD . . . 60
Removing the 10M BOARD . . . 61
Diagnostics . . . 62
Mechanical . . . 62
Transport Malfunctions . . . 62
Artifacts and Wrong Film Densities . . . 62
System Malfunctions . . . 64
Internal . . . 65
Checking the POWER SUPPLY . . . 66
Setting the Diagnostic Modes . . . 68
Checking the TEMPERATURE SENSOR . . . 70
Checking the ENTRANCE SENSOR BOARD . . . 71
Checking the DEVELOPER HEATER . . . 71
Checking the DRYER HEATER . . . 72
Checking the DRYER BLOWER . . . 73
Checking the DEVELOPER PUMPS . . . 74
Checking the FIXER PUMPS . . . 75
Checking the WATER SOLENOID VALVE . . . 76
Checking the COVER INTERLOCK SWITCHES . . . 77
Checking the DRIVE MOTOR . . . 77
Theory . . . 79
Introduction . . . 79
Film Processing and Functions of the PROCESSOR . . . 79
Components of the PROCESSOR . . . 81
Temperature Controls . . . 81
Drive System . . . 82
Replenishment System . . . 82
Vent System . . . 82
Control Systems . . . 83
Energizing the PROCESSOR . . . 83
System Operations . . . 84

Section 1: Safety

Warning

To prevent damage to personnel, keep floors and drains around your *Kodak X-Omat* PROCESSOR clean and dry at all times. Any fluids from mixing TANKS, and drain lines should be cleaned up immediately. If fluid is on the floor because of an overflow or other malfunction of the drain, call a qualified person to correct any problem with the drain. Kodak is not responsible for the serviceability of any drain connected to a *Kodak X-Omat* PROCESSOR. Drains are the responsibility of the customer.

- Drains must be made of material that is resistant to chemicals. Use PVC.
- The drain must be a minimum of 7.6 cm (3 in.) and be free of obstruction.
- Drain service must match local codes.

This information defines the safety and information icons used in this publication.

Warning

This icon is used for conditions that could cause personal injury.

Caution

This icon is used for conditions that could cause damage to equipment or software data.

ESD

Possible damage from electrostatic discharge.

This icon is used for conditions that could cause damage to the equipment.

Electrostatic discharge (ESD) is a primary source of:

- equipment failure
- low productivity
- equipment repairs

A person cannot feel a static charge of less than 3,500 V, but 30 V can cause damage to components in the equipment.

Preventive Measures

- Check for an ESD WARNING LABEL before doing any procedure with static-sensitive components. All static-sensitive components have graphic LABELS that frequently include instructions. Use all label instructions.
- Wear a GROUNDING STRAP when you touch static-sensitive components. Check that the CLIP remains fastened to a ground that has a clean surface with no paint.
- Repair static-sensitive components in an ESD-protected area or use a PORTABLE GROUNDING MAT.
- When moving static-sensitive components from area to area, insert and transport the components in ESD-protective material.

Important

This icon is used for important information.

Note

This icon is used for additional information.

Section 2: Illustrated Parts List

Figure 1 DEVELOPER RACK

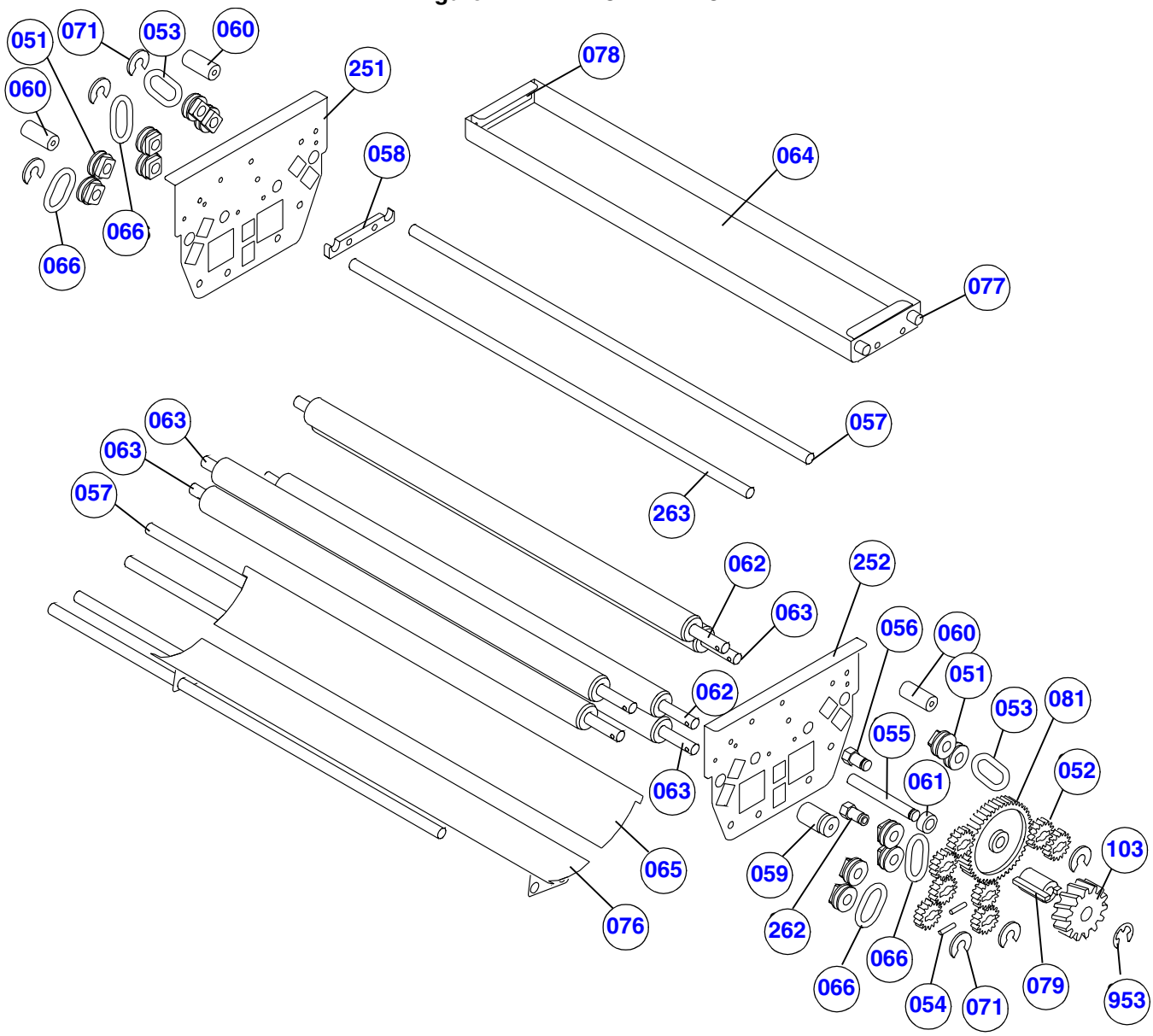

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Figure 1 DEVELOPER RACK

Item	Part No.	Description	Notes
451	1E2451	DEVELOPER RACK AY - complete	
051	1E2051	BUSHING, RACKS	
052	1E2052	GEAR, DRIVE	
053	1E2053	SPRING, 053	
054	1E2054	PIN, HELICAL	
055	1E2055	PIN, GEAR	
056	1E2056	PIN, IDLE, GEAR	
057	1E2057	BAR, REINFORCING, EXIT	
058	1E2058	GUIDE STOP	
059	1E2059	SPACER, DRIVE SIDE, GROOVED	
060	1E2060	SPACER, RACK SUPPORT	
061	1E2061	SPACER, SHORT	
062	1E2062	ROLLER, DRIVE	
063	1E2063	ROLLER, DRIVE, RUBBER	
064	1E2064	COVER, EVAPORATION	
065	1E2065	GUIDE, BOTTOM	
066	1E2066	SPRING, 066	
071	1E2071	C-RING	
076	1E2076	GUIDE, BOTTOM, DEVELOPER	
077	1E2077	PIN, FIXED	
078	1E2078	HANDLE, EVAP. COVER	
079	1E2079	SPACER, LARGE	
081	1E2081	GEAR, IDLE	
103	1E2103	GEAR	
251	1E2251	SIDE PLATE, RACK, NONDRIVE	
252	1E2252	SIDE PLATE, RACK, DRIVE	
262	1E2262	PIN, IDLE	
263	1E2263	BAR, REINFORCING, ENTRANCE	
953	1E2953	E-RING	

Figure 2 FIXER RACK

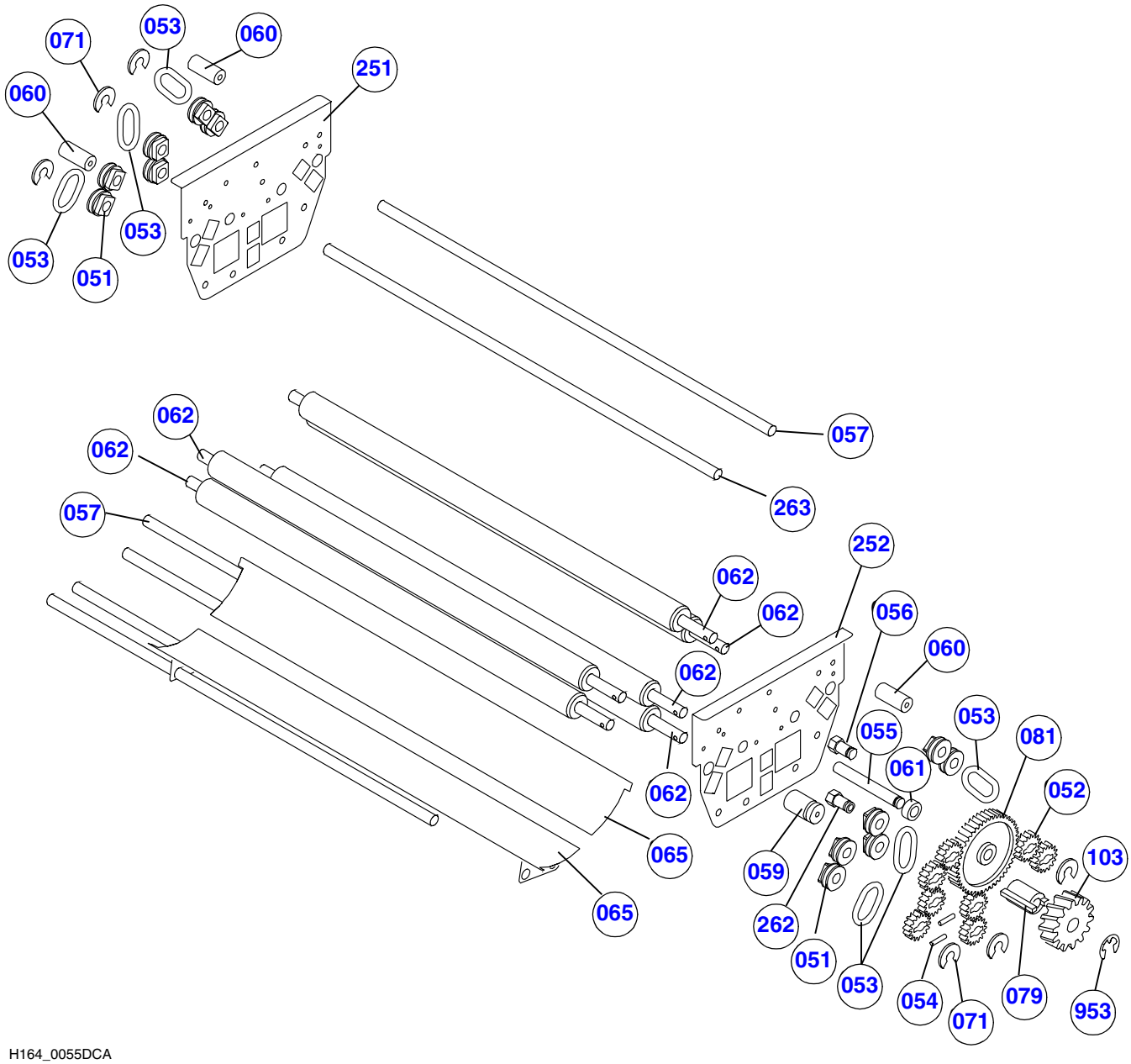

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Figure 2 FIXER RACK

Item	Part No.	Description	Notes
452	1E2452	FIXER RACK AY - complete	
051	1E2051	BUSHING, RACKS	
052	1E2052	GEAR, DRIVE	
053	1E2053	SPRING, 053	
054	1E2054	PIN, HELICAL	
055	1E2055	PIN, GEAR	
056	1E2056	PIN, IDLE, GEAR	
057	1E2057	BAR, REINFORCING, EXIT	
059	1E2059	SPACER, DRIVE SIDE, GROOVED	
060	1E2060	SPACER, RACK SUPPORT	
061	1E2061	SPACER, SHORT	
062	1E2062	ROLLER, DRIVE	
065	1E2065	GUIDE, BOTTOM	
071	1E2071	C-RING	
079	1E2079	SPACER, LARGE	
081	1E2081	GEAR, IDLE	
103	1E2103	GEAR	
251	1E2251	SIDE PLATE, RACK, NONDRIVE	
252	1E2252	SIDE PLATE, RACK, DRIVE	
262	1E2262	PIN, IDLE	
263	1E2263	BAR, REINFORCING, ENTRANCE	
953	1E2953	E-RING	

Figure 3 WASH RACK

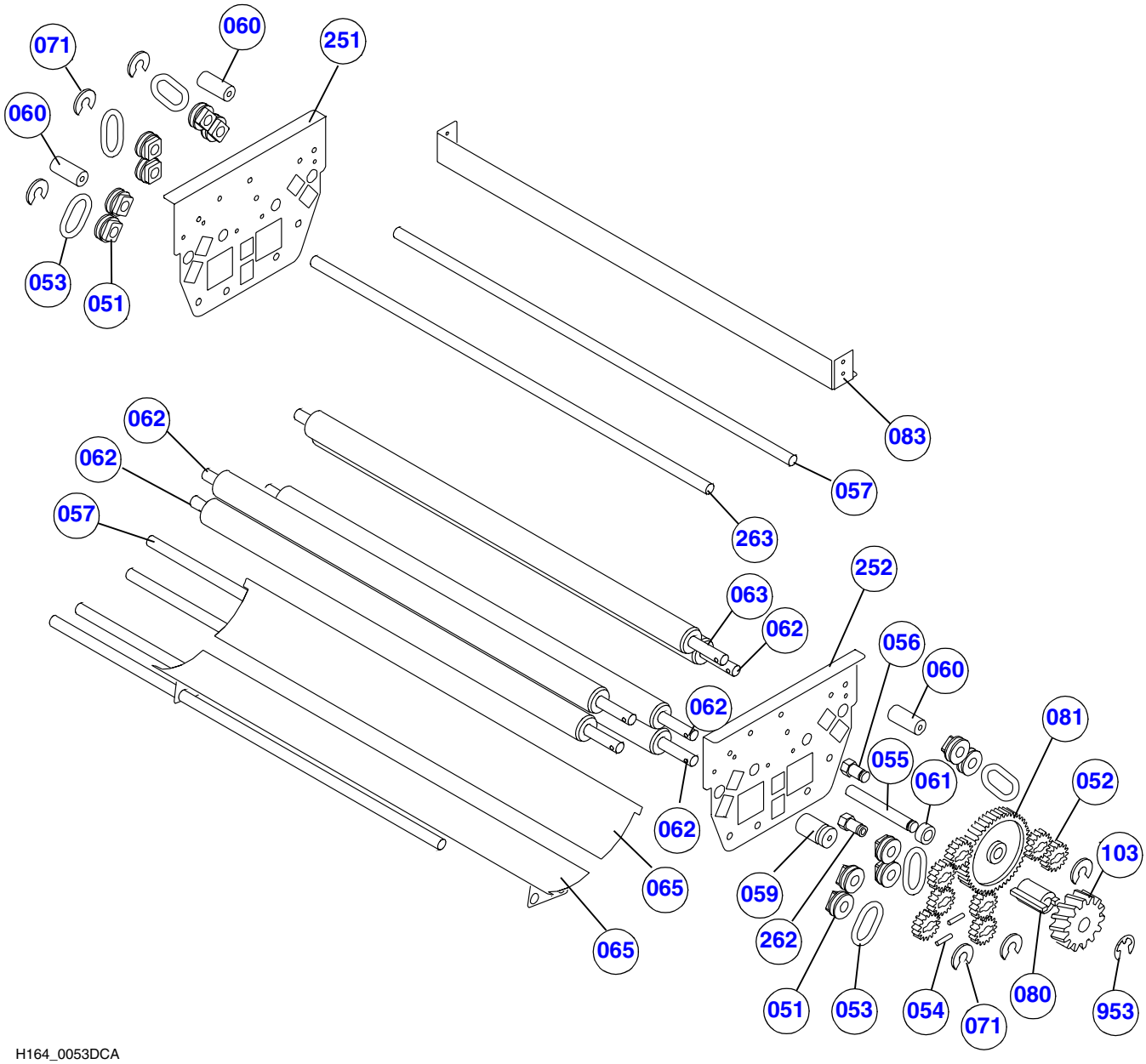

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Figure 3 WASH RACK

Item	Part No.	Description	Notes
453	1E2453	WASH RACK AY - complete	
051	1E2051	BUSHING, RACKS	
052	1E2052	GEAR, DRIVE	
053	1E2053	SPRING, 053	
054	1E2054	PIN, HELICAL	
055	1E2055	PIN, GEAR	
056	1E2056	PIN, IDLE, GEAR	
057	1E2057	BAR, REINFORCING, EXIT	
059	1E2059	SPACER, DRIVE SIDE, GROOVED	
060	1E2060	SPACER, RACK SUPPORT	
061	1E2061	SPACER, SHORT	
062	1E2062	ROLLER, DRIVE	
063	1E2063	ROLLER, DRIVE, RUBBER	
065	1E2065	GUIDE, BOTTOM	
071	1E2071	C-RING	
080	1E2080	SPACER, WASH RACK, DRIVE	
081	1E2081	GEAR, IDLE	
083	1E2083	GUIDE, OUTLET	
103	1E2103	GEAR	
251	1E2251	SIDE PLATE, RACK, NONDRIVE	
252	1E2252	SIDE PLATE, RACK, DRIVE	
262	1E2262	PIN, IDLE	
263	1E2263	BAR, REINFORCING, ENTRANCE	
953	1E2953	E-RING	

Figure 4 DRYER RACK

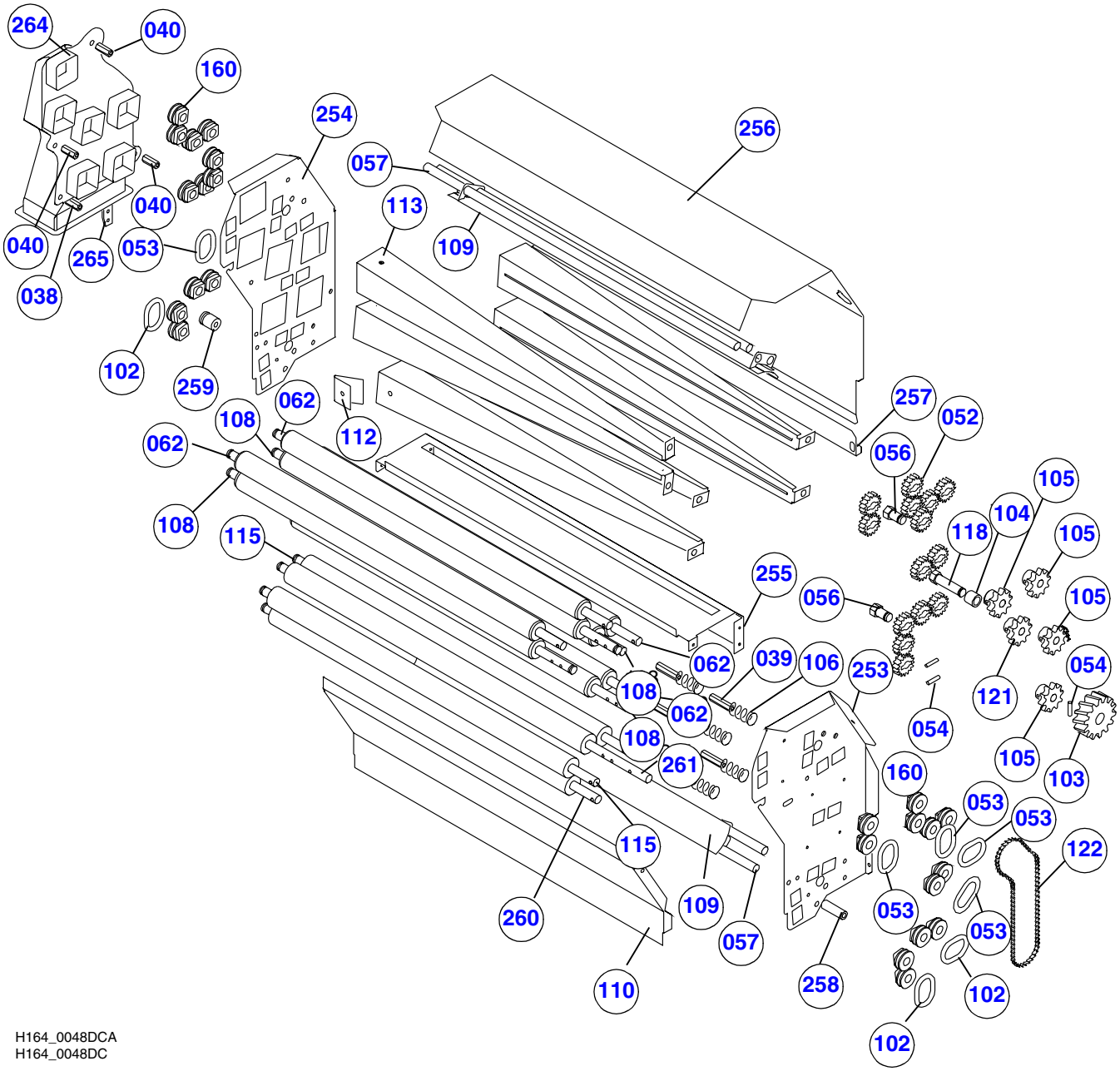

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Figure 4 DRYER RACK

Item	Part No.	Description	Notes
454	1E2454	DRYER RACK AY - complete	
038	1E2038	SPACER, DRYER, NON-DRIVE SIDE LOWER	
039	1E2039	SPACER, AIR TUBE	
040	1E2040	SPACER, DRYER, NON-DRIVE SIDE	
052	1E2052	GEAR, DRIVE	
053	1E2053	SPRING, 053	
054	1E2054	PIN, HELICAL	
056	1E2056	PIN, IDLE, GEAR	
057	1E2057	BAR, REINFORCING, EXIT	
062	1E2062	ROLLER, DRIVE	
102	1E2102	SPRING, 102	
103	1E2103	GEAR	
104	1E2104	SPACER, DRYER SPROCKET	
105	1E2105	SPROCKET, DRIVE	
106	1E2106	SPRING, COIL	
108	1E2108	ROLLER, DRIVE, DRYER	
109	1E2109	GUIDE, DRYER	
110	1E2110	COVER, DRYER, FRONT	
112	1E2112	FITTING, AIR ADJUSTMENT	
113	1E2113	TUBE, AIR	
115	1E2115	ROLLER, RUBBER	
118	1E2118	PIN, SPROCKET	
121	1E2121	SPROCKET	
122	1E2122	CHAIN, DRIVE	
160	1E2160	BUSHING, DRYER	
253	1E2253	SIDE PLATE, DRYER, DRIVE	
254	1E2254	SIDE PLATE, DRYER, NONDRIVE	
255	1E2255	COVER, DRYER, LOWER	
256	1E2256	COVER, DRYER REAR	
257	1E2257	BRACKET, DRYER RACK	
258	1E2258	SPACER, DRYER RACK, DRIVE	
259	1E2259	SPACER, DRYER RACK NONDRIVE	
260	1E2260	ROLLER, RUBBER	
261	1E2261	ROLLER, RUBBER	
264	1E2264	DUCT, AIR	
265	1E2265	SPACER, DRYER RACK	

Figure 5 PROCESSOR BASE for 1000A PROCESSOR - Serial No. 0 - 482 and 1000 PROCESSOR - Serial No. 0 - 1242

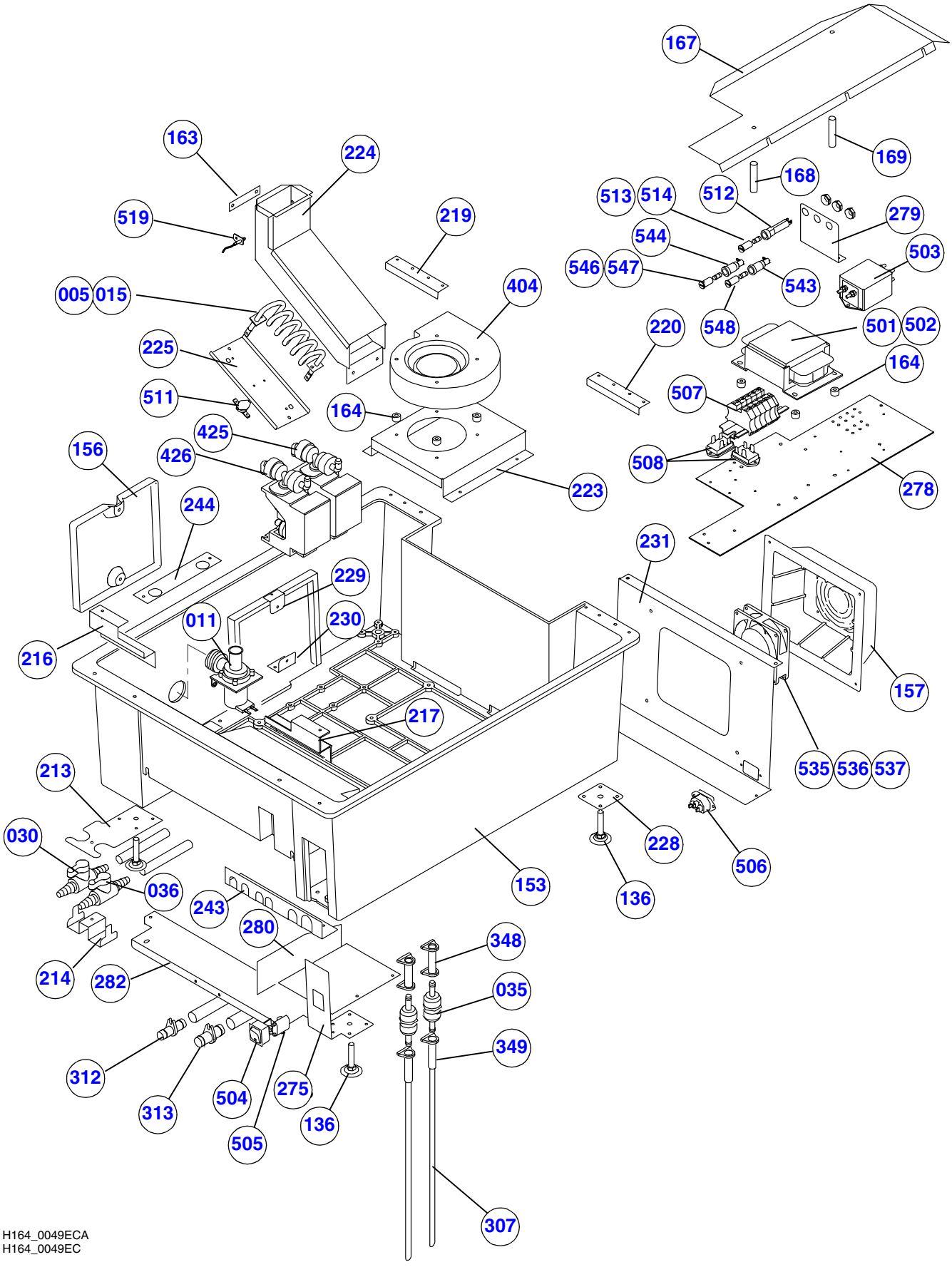

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Figure 5 PROCESSOR BASE for 1000A PROCESSOR - Serial No. 0 - 482 and 1000 PROCESSOR - Serial No. 0 - 1242

Item	Part No.	Description	Notes
005	1E2005	HEATER, DRYER, H52A, 1000A/1000J PROCESSORS	
011	1E2011	VALVE, SOLENOID, WATER, SL51	
015	1E2015	HEATER, DRYER, H52, 1000 PROCESSOR	
030	1E2030	VALVE, RED	
035	1E2035	FILTER	
036	1E2036	VALVE, BLUE	
136	1E2136	LEVELING SCREW	
153	1E2153	BODY, LOWER	Special order part.
156	1E2156	COVER, SIDE	Special order part.
157	1E2157	CASE, FAN	Special order part.
163	1E2163	SPACER, DRYER DUCT	Special order part.
164	1E2164	SPACER, TRANSFORMER	Special order part.
167	1E2167	ELECTRICAL COVER	
168	1E2168	SUPPORT, FEED END	
169	1E2169	SUPPORT, NON-FEED END	
213	1E2213	BRACKET, VALVE	Special order part.
214	1E2214	FITTING PLATE, VALVE	Special order part.
216	1E2216	FITTING, MAIN BODY, RIGHT	Special order part.
217	1E2217	FITTING, MAIN BODY, LEFT	Special order part.
219	1E2219	BRACKET, HINGE, RIGHT	Special order part.
220	1E2220	BRACKET, HINGE, LEFT	Special order part.
223	1E2223	BRACKET, DRYER BLOWER	Special order part.
224	1E2224	DUCT, DRYER	Special order part.
225	1E2225	FITTING PLATE, DRYER	Special order part.
228	1E2228	NUT PLATE	Special order part.
229	1E2229	FITTING PLATE, SIDE COVER, UPPER	Special order part.
230	1E2230	FITTING PLATE, SIDE COVER, LOWER	Special order part.
231	1E2231	FITTING PLATE, VENTILATION FAN	Special order part.
243	1E2243	COVER, HOSE, FEED END	Special order part.
244	1E2244	COVER, HOSE, D/F OVERFLOW	Special order part.
275	1E2275	BRACKET, SWITCH	Special order part.
278	1E2278	BRACKET, TRANSFORMER	Special order part.
279	1E2279	BRACKET, FUSE	Special order part.
280	1E2280	COVER, WIRING	Special order part.
282	1E2282	BRACKET, BOX	Special order part.
307	1E2307	HOSE, REPLENISHMENT, LONG	Special order part.
312	1E2312	CONNECTOR, WASH DRAIN	
313	1E2313	CONNECTOR, WASH OVERFLOW	
314	1E2314	ORIFICE, WASH DRAIN, 0.045	Not visible in graphic.
348	1E2348	TUBE, REPLENISHMENT, FILTER TO TANK	Special order part.
349	1E2349	TUBE, REPLENISHMENT, SUPPLY TO FILTER	Special order part.

Item	Part No.	Description	Notes
404	1E2404	BLOWER, DRYER, FN52	
425	1E2425	PUMP, REPLENISHMENT, DEVELOPER, M54	
426	1E2426	PUMP, REPLENISHMENT, FIXER, M55	
467	1E2467	VALVE, POPPET, REPLENISHMENT PUMP	Not visible in graphic.
501	1E2501	TRANSFORMER, T51A, 1000A/1000J PROCESSORS	
502	1E2502	TRANSFORMER, T51, 1000 PROCESSOR	
503	1E2503	FILTER, EMI, NF51	
504	1E2504	SWITCH, POWER, SW51	
505	1E2505	CAPACITOR, Z51	
506	1E2506	INLET CONNECTION	
507	1E2507	TERMINAL BLOCK, TB51	
508	1E2508	RELAY, SOLID STATE	
511	1E2511	THERMOSTAT, OVERTEMPERATURE, DRYER, SW53	
512	1E2512	FUSE HOLDER, F51A/F51	
513	1E2513	FUSE, F51A, 15A, 1000A/1000J PROCESSORS	
514	1E2514	FUSE, F51, 8A, 1000 PROCESSOR	
519	1E2519	SENSOR, DRYER TEMPERATURE, SE52	
535	1E2535	FAN, VENTILATION, FH51J, 1000J PROCESSOR	
536	1E2536	FAN, VENTILATION, FN51A, 1000A PROCESSOR	
537	1E2537	FAN, VENTILATION, FN51, 1000 PROCESSOR	
543	1E2543	FUSE HOLDER, F52	
544	1E2544	FUSE HOLDER, F53A/F53	
546	1E2546	FUSE, 2.0 A, 1000A/1000J PROCESSORS	
547	1E2547	FUSE, 1.6A, 1000 PROCESSOR	
548	1E2548	FUSE, F52, 0.2A	

Figure 6 PROCESSOR BASE for 1000A PROCESSOR - Serial No. 483 and above and 1000 PROCESSOR - Serial No. 1243 and above

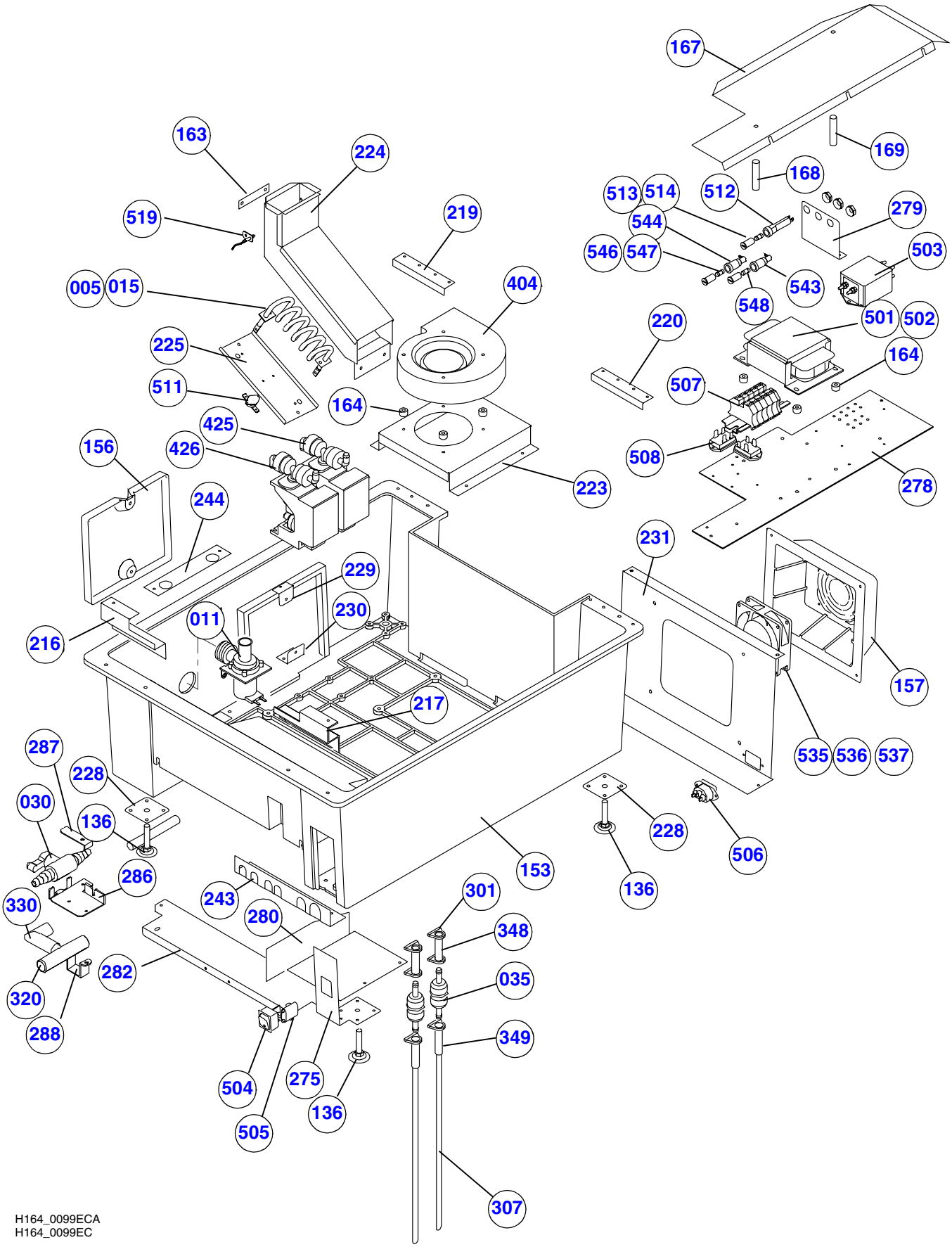

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Figure 6 PROCESSOR BASE for 1000A PROCESSOR - Serial No. 483 and above and 1000 PROCESSOR - Serial No. 1243 and above

Item	Part No.	Description	Notes
005	1E2005	HEATER, DRYER, H52A, 1000A/1000J PROCESSORS	
011	1E2011	VALVE, SOLENOID, WATER, SL51	
015	1E2015	HEATER, DRYER, H52, 1000 PROCESSOR	
030	1E2030	VALVE, RED	
035	1E2035	FILTER	
136	1E2136	LEVELING SCREW	
153	1E2153	BODY, LOWER	Special order part.
156	1E2156	COVER, SIDE	Special order part.
157	1E2157	CASE, FAN	Special order part.
163	1E2163	SPACER, DRYER DUCT	Special order part.
164	1E2164	SPACER, TRANSFORMER	Special order part.
167	1E2167	ELECTRICAL COVER	
168	1E2168	SUPPORT, FEED END	
169	1E2169	SUPPORT, NON-FEED END	
216	1E2216	FITTING, MAIN BODY, RIGHT	Special order part.
217	1E2217	FITTING, MAIN BODY, LEFT	Special order part.
219	1E2219	BRACKET, HINGE, RIGHT	Special order part.
220	1E2220	BRACKET, HINGE, LEFT	Special order part.
223	1E2223	BRACKET, DRYER BLOWER	Special order part.
224	1E2224	DUCT, DRYER	Special order part.
225	1E2225	FITTING PLATE, DRYER	Special order part.
228	1E2228	NUT PLATE	Special order part.
229	1E2229	FITTING PLATE, SIDE COVER, UPPER	Special order part.
230	1E2230	FITTING PLATE, SIDE COVER, LOWER	Special order part.
231	1E2231	FITTING PLATE, VENTILATION FAN	Special order part.
243	1E2243	COVER, HOSE, FEED END	Special order part.
244	1E2244	COVER, HOSE, D/F OVERFLOW	Special order part.
275	1E2275	BRACKET, SWITCH	Special order part.
278	1E2278	BRACKET, TRANSFORMER	Special order part.
279	1E2279	BRACKET, FUSE	Special order part.
280	1E2280	COVER, WIRING	Special order part.
282	1E2282	BRACKET, BOX	
286	1E2286	FITTING PLATE, WASH DRAIN VALVE LOWER	
287	1E2287	FITTING PLATE, WASH DRAIN VALVE UPPER	
288	1E2288	BRACKET, DRAIN TUBE SUPPORT	
301	1E2301	HOSE CLAMP	
307	1E2307	HOSE, REPLENISHMENT, LONG	Special order part.
320	1E2320	TUBE, WASH DRAIN	
330	1E2330	FIXER HOSE, SHORT	
348	1E2348	TUBE, REPLENISHMENT, FILTER TO TANK	Special order part.
349	1E2349	TUBE, REPLENISHMENT, SUPPLY TO FILTER	Special order part.

Item	Part No.	Description	Notes
404	1E2404	BLOWER, DRYER, FN52	
425	1E2425	PUMP, REPLENISHMENT, DEVELOPER, M54	
426	1E2426	PUMP, REPLENISHMENT, FIXER, M55	
467	1E2467	VALVE, POPPET, REPLENISHMENT PUMP	Not visible in graphic.
501	1E2501	TRANSFORMER, T51A, 1000A/1000J PROCESSORS	
502	1E2502	TRANSFORMER, T51, 1000 PROCESSOR	
503	1E2503	FILTER, EMI, NF51	
504	1E2504	SWITCH, POWER, SW51	
505	1E2505	CAPACITOR, Z51	
506	1E2506	INLET CONNECTION	
507	1E2507	TERMINAL BLOCK, TB51	
508	1E2508	RELAY, SOLID STATE	
511	1E2511	THERMOSTAT, OVERTEMPERATURE, DRYER, SW53	
512	1E2512	FUSE HOLDER, F51A/F51	
513	1E2513	FUSE, F51A, 15A, 1000A/1000J PROCESSORS	
514	1E2514	FUSE, F51, 8A, 1000 PROCESSOR	
519	1E2519	SENSOR, DRYER TEMPERATURE, SE52	
535	1E2535	FAN, VENTILATION, FH51J, 1000J PROCESSOR	
536	1E2536	FAN, VENTILATION, FN51A, 1000A PROCESSOR	
537	1E2537	FAN, VENTILATION, FN51, 1000 PROCESSOR	
543	1E2543	FUSE HOLDER, F52	
544	1E2544	FUSE HOLDER, F53A/F53	
546	1E2546	FUSE, 2.0 A, 1000A/1000J PROCESSORS	
547	1E2547	FUSE, 1.6A, 1000 PROCESSOR	
548	1E2548	FUSE, F52, 0.2A	

Figure 7 CROSSOVER

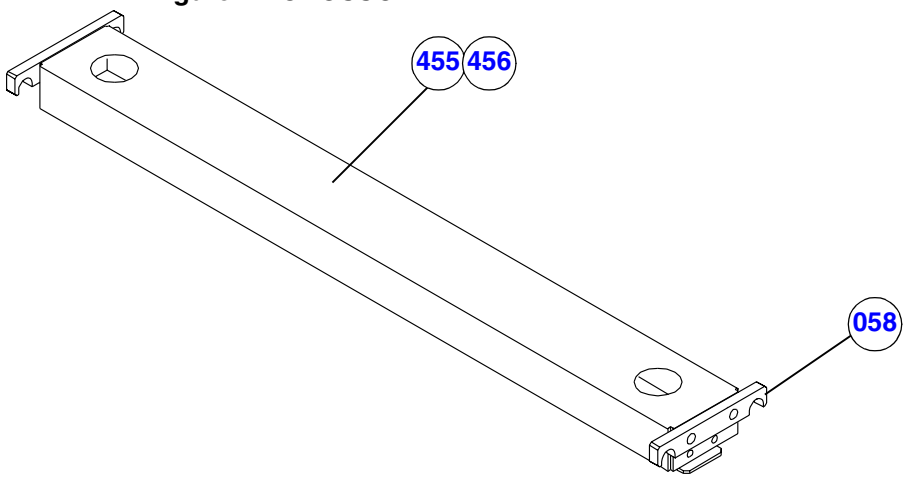

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Figure 7 CROSSOVER

Item	Part No.	Description	Notes
455	1E2455	DEVELOPER CROSSOVER	
456	1E2456	FIXER CROSSOVER	
058	1E2058	GUIDE STOP	

Figure 8 TOP COVER

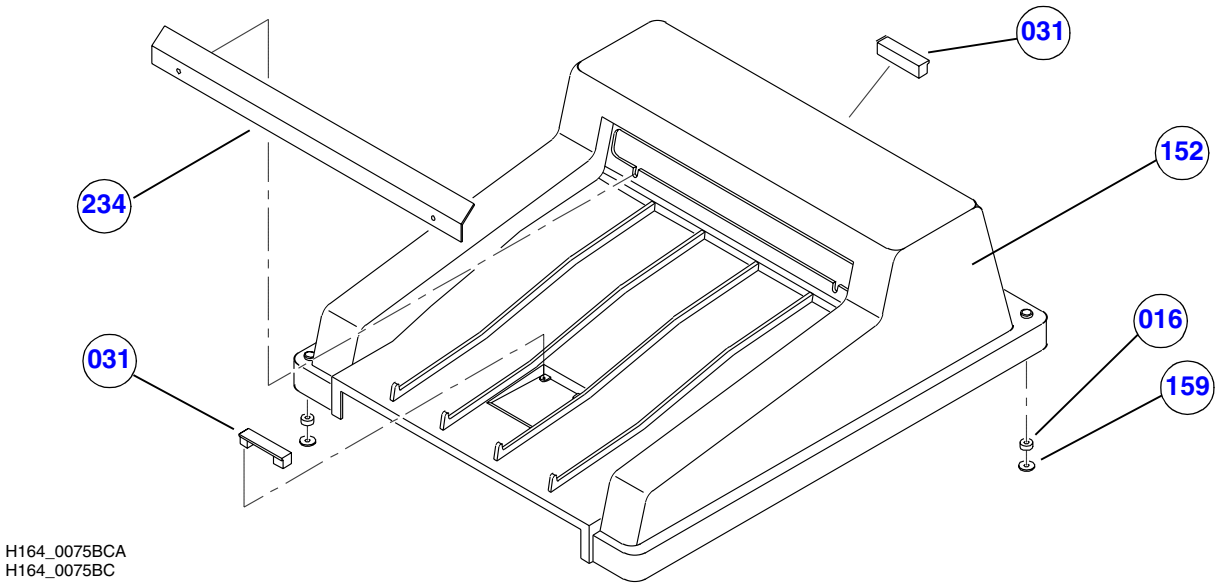

Figure 8 TOP COVER

Item	Part No.	Description	Notes
152	1E2152	TOP COVER	Special order part.
016	1E2016	MAGNET	Special order part.
031	1E2031	HANDLE	Special order part.
159	1E2159	STOPPER, MAGNET	Special order part.
234	1E2234	GUIDE, UPPER BODY	Special order part.

Figure 9 DRYER BRACKET KIT

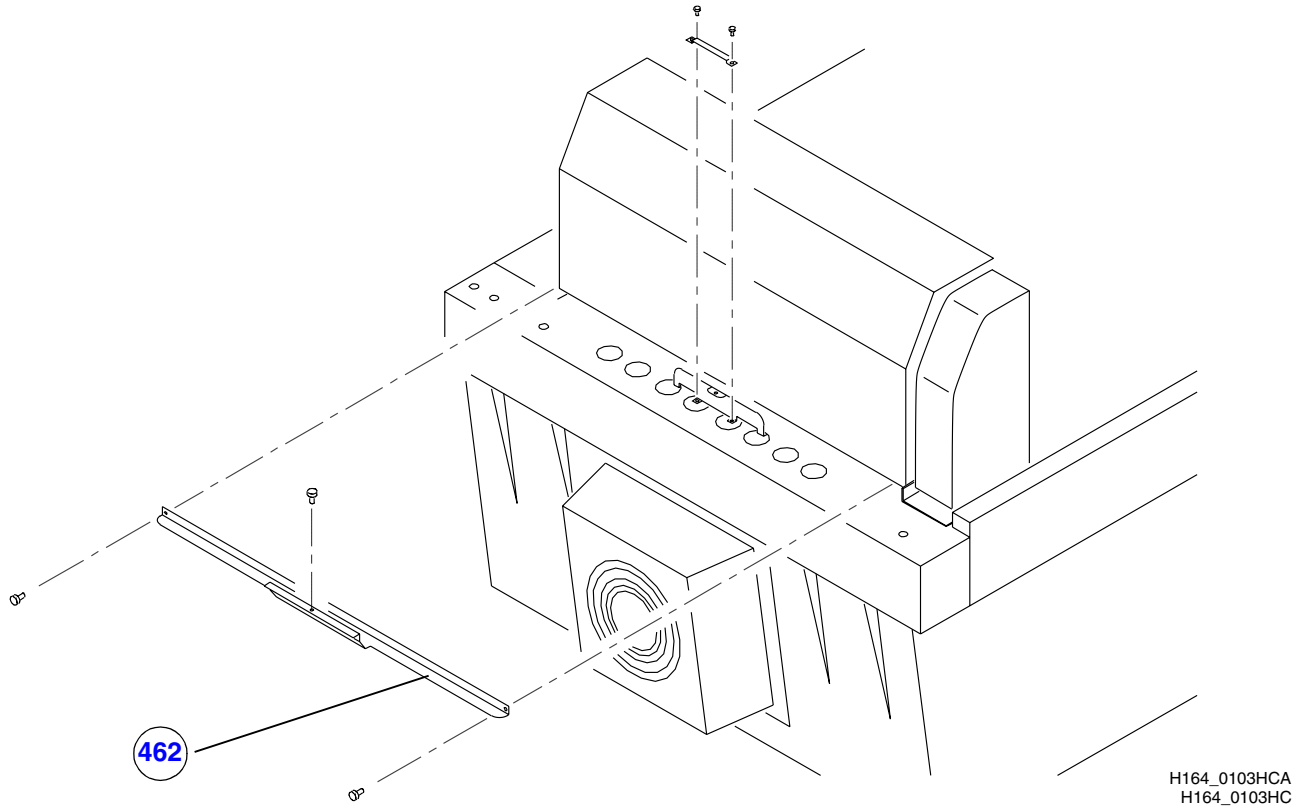

Figure 9 DRYER BRACKET KIT

Item	Part No.	Description	Notes
462	1E2462	DRYER BRACKET KIT	Includes 3 BRACKETS, 4 SCREWS and one THUMBSCREW.

Figure 10 FEED TRAY and CONTROL BOX

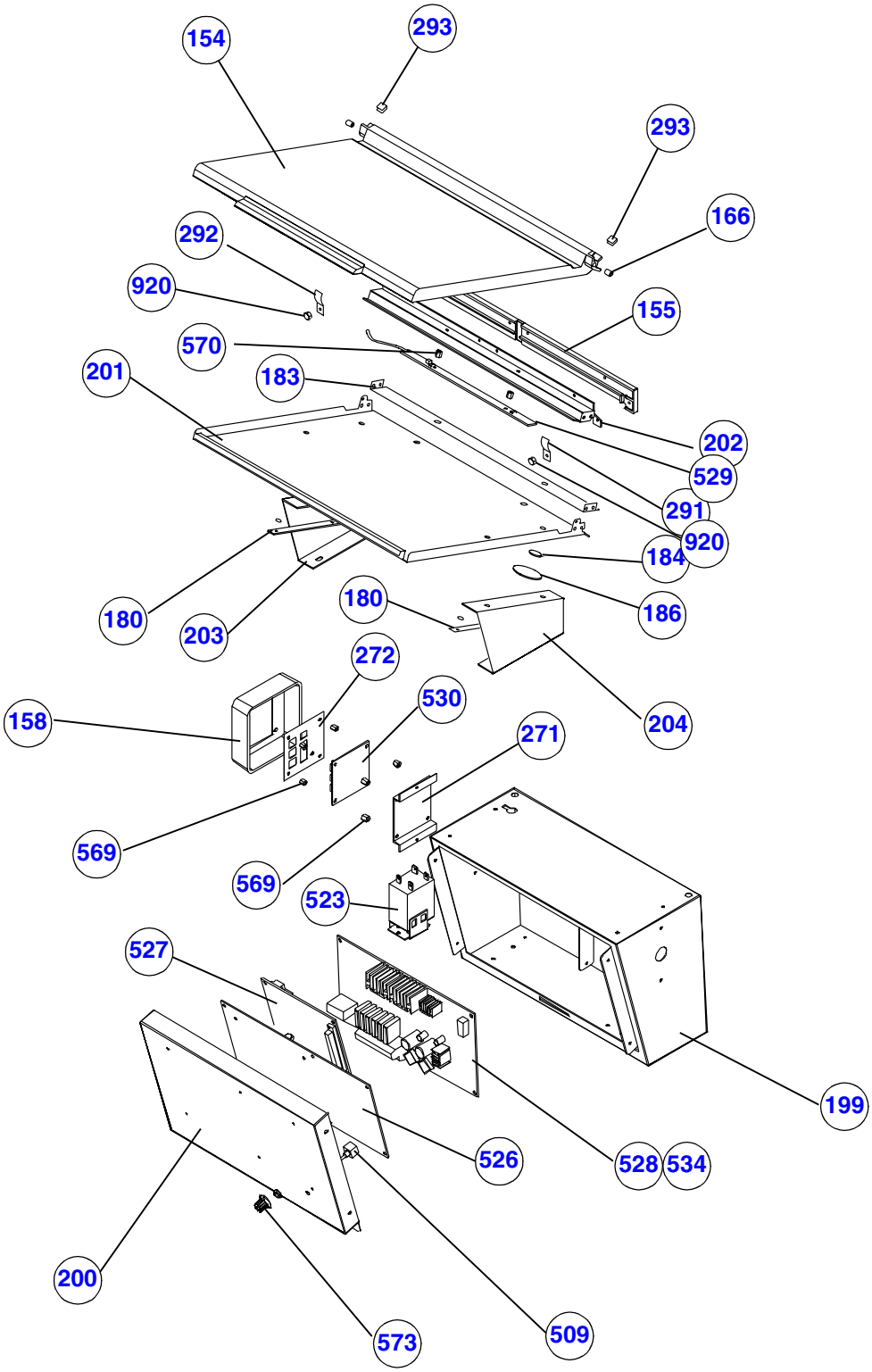

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Figure 10 FEED TRAY and CONTROL BOX

Item	Part No.	Description	Notes
154	1E2154	FILM TRAY COVER	
155	1E2155	FRAME, TRAY	Special order part.
158	1E2158	BOX, CONTROL	Special order part.
166	1E2166	BUSHING, TRAY COVER	
180	1E2180	NUT, FEED TRAY	Special order part.
183	1E2183	TRAY, GUIDE	
184	1E2184	LIGHT TIGHTNESS PLATE	Special order part.
186	1E2186	LIGHT TIGHTNESS CLOTH	Special order part.
199	1E2199	BOX, CONTROL, MAIN	Order 199 and 200 for: • 1000 PROCESSOR - Serial No. 1107 and below • 1000A PROCESSOR - Serial No. 402 and below • 1000J PROCESSOR - Serial No. 600 and below
200	1E2200	COVER, CONTROL BOX	
201	1E2201	FEED TRAY	
202	1E2202	FITTING, REINFORCING, TRAY	Special order part.
203	1E2203	BRACKET, TRAY, NON DRIVE SIDE	Special order part.
204	1E2204	BRACKET, TRAY, DRIVE SIDE	Special order part.
271	1E2271	BRACKET, CONTROL BD	Special order part.
272	1E2272	BRACKET, OPERATION BD	Special order part.
291	1E2291	SPRING, LOCK, RIGHT SIDE	
292	1E2292	SPRING, LOCK, LEFT SIDE	
293	1E2293	PLATE, FRICTION	
509	1E2509	SWITCH, DRYER TEMPERATURE SETTING, SW56	
523	1E2523	RELAY, DRIVE MOTOR, RY51	
526	1E2526	CIRCUIT BOARD, IO	
527	1E2527	CIRCUIT BOARD, IOM	
528	1E2528	CIRCUIT BOARD, DRIVE, 1000/1000A PROCESSORS	
529	1E2529	CIRCUIT BOARD, FILM SENSOR	
530	1E2530	CIRCUIT BOARD, CONTROL	
534	1E2534	CIRCUIT BOARD, DRIVE, 1000J PROCESSOR	
	1E2546	FUSE, 2.0 A, 1000A/1000J PROCESSORS	Not visible in graphic.
	1E2547	FUSE, 1.6A, 1000 PROCESSOR	Not visible in graphic.
569	1E2569	SPACER, CONTROL BOARD	
570	1E2570	SPACER, FILM SENSOR	Special order part.
573	1E2573	KNOB	Special order part.
	1E2576	RELAY, SOLID STATE, SSR1 - SSR6, DRIVE BOARD	Not visible in graphic.
920	1E2920	NUT	

Figure 11 PROCESSOR TANK SECTION for 1000A PROCESSOR - Serial No. 0 - 482 and 1000 PROCESSOR - Serial No. 0 - 1242

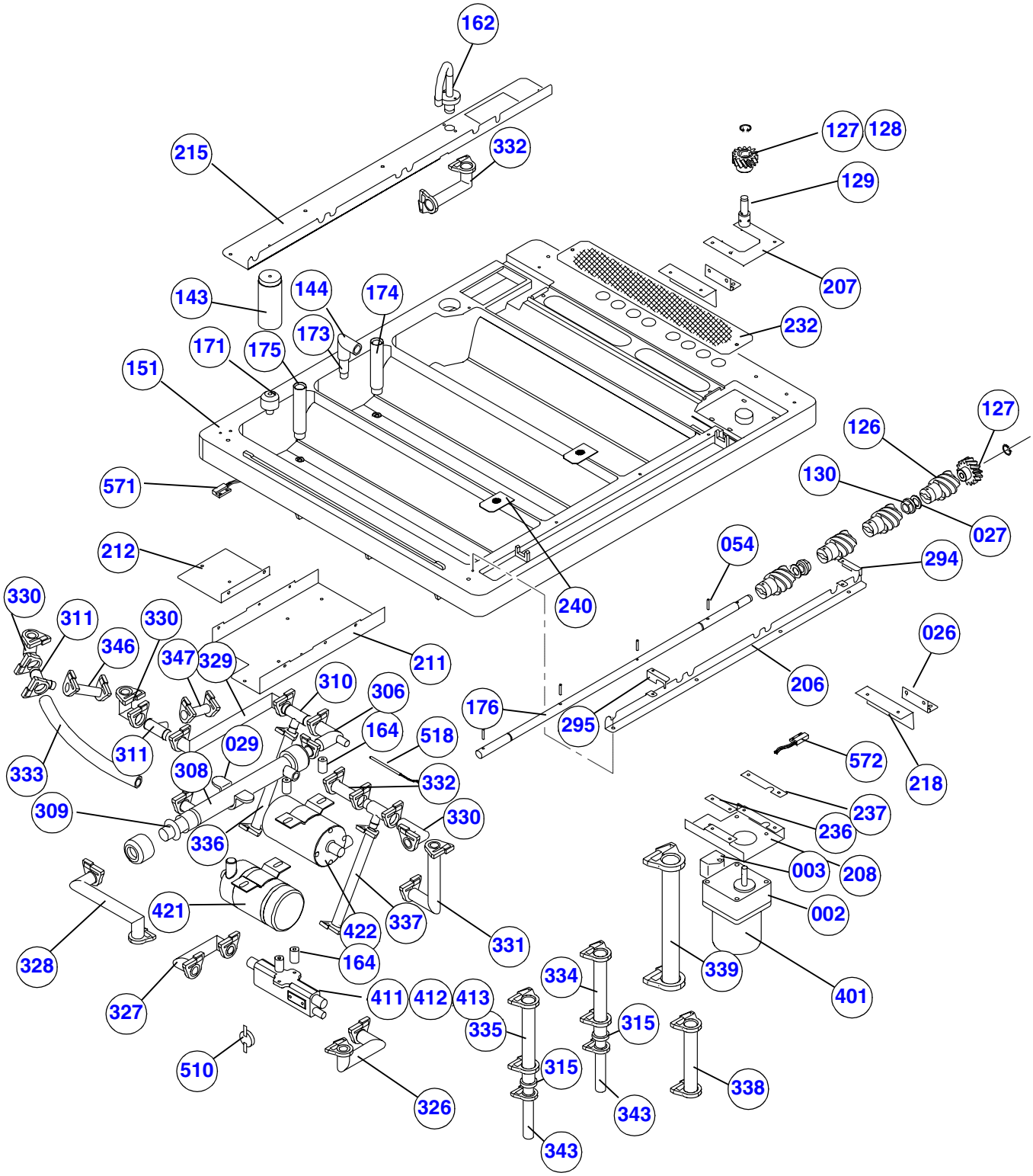

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Figure 11 PROCESSOR TANK SECTION for 1000A PROCESSOR - Serial No. 0 - 482 and 1000 PROCESSOR - Serial No. 0 - 1242

Item	Part No.	Description	Notes
002	1E2002	GEAR BOX	
003	1E2003	CONDENSER	
026	1E2026	HINGE	Special order part.
027	1E2027	WASHER	
029	1E2029	FITTING	
054	1E2054	PIN, HELICAL	
126	1E2126	GEAR, WORM, LEFT	
127	1E2127	HELICAL GEAR, 50 HZ, WHITE	
128	1E2128	HELICAL GEAR, 60 HZ, BLACK	
129	1E2129	SHAFT, DRIVE MOTOR	
130	1E2130	BEARING, DRIVE SIDE	
143	1E2143	PIPING, SHOWER	Special order part.
144	1E2144	ELBOW, FIXER, BELCHING DUCT	Special order part.
151	1E2151	MAIN BODY	Special order part.
162	1E2162	TUBE, WATER SUPPLY	
164	1E2164	SPACER, TRANSFORMER	Special order part.
171	1E2171	BELCHING DUCT, DEVELOPER	Special order part.
173	1E2173	BELCHING DUCT, FIXER	Special order part.
174	1E2174	PIPE, OVERFLOW, FIXER	
175	1E2175	PIPE, OVERFLOW, DEVELOPER	Special order part.
176	1E2176	DRIVE SHAFT	Special order part.
206	1E2206	SUPPORT, RACK, LEFT	Special order part.
207	1E2207	FITTING PLATE, MOTOR	Special order part.
208	1E2208	BRACKET, MOTOR	Special order part.
211	1E2211	BRACKET, PUMP	Special order part.
212	1E2212	FITTING PLATE, HEAT EXCHANGER	Special order part.
215	1E2205	SUPPORT, RACK, RIGHT	Special order part.
218	1E2218	BRACKET, HINGE	Special order part.
232	1E2232	FILTER, DRYER	Special order part.
236	1E2236	RUBBER PLATE, DRIVE MOTOR, LEFT	Special order part.
237	1E2237	RUBBER PLATE, DRIVE MOTOR, RIGHT	Special order part.
240	1E2240	SCREEN, FILTER	
294	1E2294	BRACKET, DRYER END	Use SCREW 1E2903.
295	1E2295	BRACKET, DEVELOPER END	Use SCREW 1E2903.
306	1E2306	HOSE, DEVELOPER TEMPERATURE SENSOR	
308	1E2308	HEAT EXCHANGER	Includes O-RING and END CAPS.
309	1E2309	TUBING	
310	1E2310	CONNECTOR, T, DRAIN	
311	1E2311	CONNECTOR, T, REPLENISHMENT	
315	1E2315	CONNECTOR, OVERFLOW, OLD	
326	1E2326	HOSE, DEVELOPER, HEATER TO TANK	

Item	Part No.	Description	Notes
327	1E2327	HOSE, DEVELOPER, PUMP TO HEATER	
328	1E2328	HOSE, DEVELOPER, HEAT EXCHANGER TO PUMP	
329	1E2329	DEVELOPER HOSE	
330	1E2330	FIXER HOSE, SHORT	
331	1E2331	HOSE, FIXER	
332	1E2332	HOSE, WATER SUPPLY	
333	1E2333	FIXER HOSE, LONG	
334	1E2334	HOSE, OVERFLOW, FIXER TANK	
335	1E2335	HOSE, OVERFLOW, DEVELOPER TANK	
336	1E2336	DRAIN HOSE, DEVELOPER	
337	1E2337	DRAIN HOSE, FIXER	
338	1E2338	HOSE	
339	1E2339	HOSE, WASH TANK OVERFLOW, ORIGINAL	
343	1E2343	HOSE, OVERFLOW	
346	1E2346	TUBING, DEVELOPER	
347	1E2347	TUBING, FIXER	
401	1E2401	DRIVE MOTOR M51	
411	1E2411	HEATER, DEVELOPER, H51A, 1000A PROCESSOR	
412	1E2412	HEATER, DEVELOPER, H51, 1000 PROCESSOR	
413	1E2413	HEATER, DEVELOPER, H51J, 1000J PROCESSOR	
421	1E2421	RECIRCULATION PUMP, DEVELOPER, M52	
422	1E2422	RECIRCULATION PUMP, FIXER, M53	
	1E2466	SCREWS, NUTS and ASSORTED HARDWARE	Not visible in graphic. An assortment of PROCESSOR HARDWARE.
510	1E2510	THERMOSTAT, DEVELOPER, OVERTEMP, SW52	
518	1E2518	SENSOR, DEVELOPER TEMPERATURE, SE51	
571	1E2571	SWITCH, COVER, SW55	
572	1E2572	SWITCH, COVER, SW54	
	9B8381	CLAMP, HOSE, ASSORTED SIZES	Not visible in graphic.

Figure 12 PROCESSOR TANK SECTION for 1000A PROCESSOR - Serial No. 483 and above and 1000 PROCESSOR - Serial No. 1243 and above

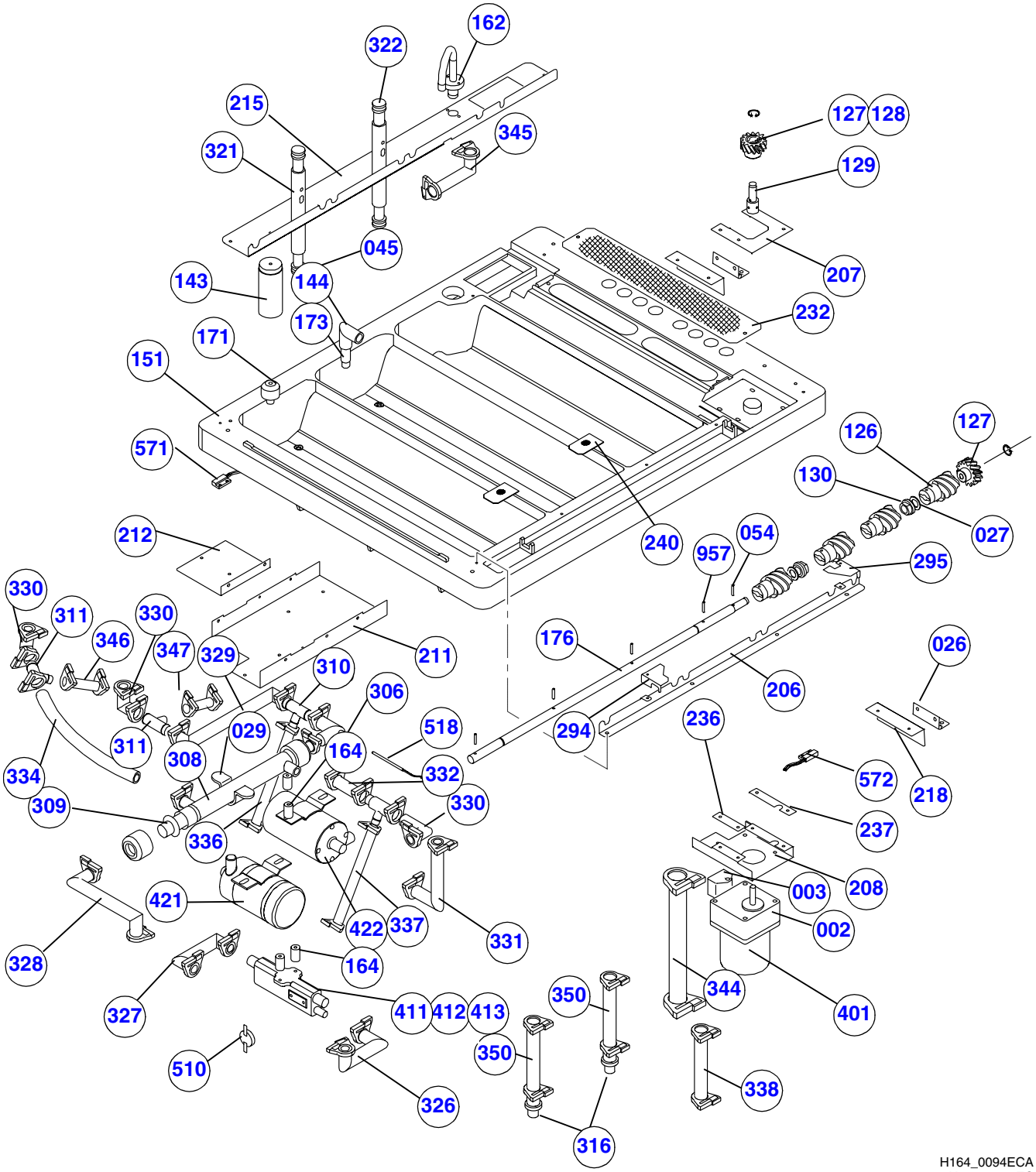

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Figure 12 PROCESSOR TANK SECTION for 1000A PROCESSOR - Serial No. 483 and above and 1000 PROCESSOR - Serial No. 1243 and above

Item	Part No.	Description	Notes
002	1E2002	GEAR BOX	
003	1E2003	CONDENSER	
026	1E2026	HINGE	Special order part.
027	1E2027	WASHER	
029	1E2029	FITTING	
045	1E2045	O-RING	
054	1E2054	PIN, HELICAL	
126	1E2126	GEAR, WORM, LEFT	
127	1E2127	HELICAL GEAR, 50 HZ, WHITE	
128	1E2128	HELICAL GEAR, 60 HZ, BLACK	
129	1E2129	SHAFT, DRIVE MOTOR	
130	1E2130	BEARING, DRIVE SIDE	
143	1E2143	PIPING, SHOWER	Special order part.
144	1E2144	ELBOW, FIXER, BELCHING DUCT	Special order part.
151	1E2151	MAIN BODY	Special order part.
162	1E2162	TUBE, WATER SUPPLY	
164	1E2164	SPACER, TRANSFORMER	Special order part.
171	1E2171	BELCHING DUCT, DEVELOPER	Special order part.
173	1E2173	BELCHING DUCT, FIXER	Special order part.
176	1E2176	DRIVE SHAFT	Special order part.
206	1E2206	SUPPORT, RACK, LEFT	Special order part.
207	1E2207	FITTING PLATE, MOTOR	Special order part.
208	1E2208	BRACKET, MOTOR	Special order part.
211	1E2211	BRACKET, PUMP	Special order part.
212	1E2212	FITTING PLATE, HEAT EXCHANGER	Special order part.
215	1E2215	SUPPORT, RACK, RIGHT	Special order part.
218	1E2218	BRACKET, HINGE	Special order part.
232	1E2232	FILTER, DRYER	Special order part.
236	1E2236	RUBBER PLATE, DRIVE MOTOR, LEFT	Special order part.
237	1E2237	RUBBER PLATE, DRIVE MOTOR, RIGHT	Special order part.
240	1E2240	SCREEN, FILTER	
294	1E2294	BRACKET, DRYER END	Use SCREW 1E2903.
295	1E2295	BRACKET, DEVELOPER END	Use SCREW 1E2903.
306	1E2306	HOSE, DEVELOPER TEMPERATURE SENSOR	
308	1E2308	HEAT EXCHANGER	Includes O-RING and END CAPS.
309	1E2309	TUBING	
310	1E2310	CONNECTOR, T, DRAIN	
311	1E2311	CONNECTOR, T, REPLENISHMENT	
316	1E2316	CONNECTOR, OVERFLOW	
321	1E2321	STAND PIPE, DEVELOPER	
322	1E2322	STAND PIPE, FIXER	Special order part.

Item	Part No.	Description	Notes
326	1E2326	HOSE, DEVELOPER, HEATER TO TANK	
327	1E2327	HOSE, DEVELOPER, PUMP TO HEATER	
328	1E2328	HOSE, DEVELOPER, HEAT EXCHANGER TO PUMP	
329	1E2329	DEVELOPER HOSE	
330	1E2330	FIXER HOSE, SHORT	
331	1E2331	HOSE, FIXER	
332	1E2332	HOSE, WATER SUPPLY	
334	1E2334	HOSE, OVERFLOW, FIXER TANK	
336	1E2336	DRAIN HOSE, DEVELOPER	
337	1E2337	DRAIN HOSE, FIXER	
338	1E2338	HOSE	
344	1E2344	HOSE, WASH TANK OVERFLOW, NEW	
345	1E2345	HOSE, WATER SUPPLY	
346	1E2346	TUBING, DEVELOPER	
347	1E2347	TUBING, FIXER	
350	1E2350	HOSE, OVERFLOW, D/F	
401	1E2401	DRIVE MOTOR M51	Includes GEAR BOX 1E2002.
411	1E2411	HEATER, DEVELOPER, H51A, 1000A PROCESSOR	
412	1E2412	HEATER, DEVELOPER, H51, 1000 PROCESSOR	
413	1E2413	HEATER, DEVELOPER, H51J, 1000J PROCESSOR	
421	1E2421	RECIRCULATION PUMP, DEVELOPER, M52	
422	1E2422	RECIRCULATION PUMP, FIXER, M53	
	1E2466	SCREWS, NUTS and ASSORTED HARDWARE	Not visible in graphic. An assortment of PROCESSOR HARDWARE.
510	1E2510	THERMOSTAT, DEVELOPER, OVERTEMP, SW52	
518	1E2518	SENSOR, DEVELOPER TEMPERATURE, SE51	
571	1E2571	SWITCH, COVER, SW55	
572	1E2572	SWITCH, COVER, SW54	
957	1E2957	PIN, WORM GEAR	
	9B8381	CLAMP, HOSE, ASSORTED SIZES	Not visible in graphic.

Section 3: Numerical Index

Numerical Index

Part No.	Description	Figure No.
1E2002	GEAR BOX	11, 12
1E2003	CONDENSER	11, 12
1E2005	HEATER, DRYER, H52A, 1000A/1000J PROCESSORS	5, 6
1E2011	VALVE, SOLENOID, WATER, SL51	5, 6
1E2015	HEATER, DRYER, H52, 1000 PROCESSOR	5, 6
1E2016	MAGNET	8
1E2026	HINGE	11, 12
1E2027	WASHER	11, 12
1E2029	FITTING	11, 12
1E2030	VALVE, RED	5, 6
1E2031	HANDLE	8
1E2035	FILTER	5, 6
1E2036	VALVE, BLUE	5
1E2038	SPACER, DRYER, NON-DRIVE SIDE LOWER	4
1E2039	SPACER, AIR TUBE	4
1E2040	SPACER, DRYER, NON-DRIVE SIDE	4
1E2045	O-RING	12
1E2051	BUSHING, RACKS	1, 2, 3
1E2052	GEAR, DRIVE	1, 2, 3, 4
1E2053	SPRING, 053	1, 2, 3, 4
1E2054	PIN, HELICAL	1, 2, 3, 4, 11, 12
1E2055	PIN, GEAR	1, 2, 3
1E2056	PIN, IDLE, GEAR	1, 2, 3, 4
1E2057	BAR, REINFORCING, EXIT	1, 2, 3, 4
1E2058	GUIDE STOP	1, 7
1E2059	SPACER, DRIVE SIDE, GROOVED	1, 2, 3
1E2060	SPACER, RACK SUPPORT	1, 2, 3
1E2061	SPACER, SHORT	1, 2, 3
1E2062	ROLLER, DRIVE	1, 2, 3, 4
1E2063	ROLLER, DRIVE, RUBBER	1, 3
1E2064	COVER, EVAPORATION	1
1E2065	GUIDE, BOTTOM	1, 2, 3
1E2066	SPRING, 066	1
1E2071	C-RING	1, 2, 3
1E2076	GUIDE, BOTTOM, DEVELOPER	1
1E2077	PIN, FIXED	1
1E2078	HANDLE, EVAP. COVER	1
1E2079	SPACER, LARGE	1, 2
1E2080	SPACER, WASH RACK, DRIVE	3
1E2081	GEAR, IDLE	1, 2, 3
1E2083	GUIDE, OUTLET	3
1E2102	SPRING, 102	4
1E2103	GEAR	1, 2, 3, 4
1E2104	SPACER, DRYER SPROCKET	4
1E2105	SPROCKET, DRIVE	4
1E2106	SPRING, COIL	4

Numerical Index

Part No.	Description	Figure No.
1E2108	ROLLER, DRIVE, DRYER	4
1E2109	GUIDE, DRYER	4
1E2110	COVER, DRYER, FRONT	4
1E2112	FITTING, AIR ADJUSTMENT	4
1E2113	TUBE, AIR	4
1E2115	ROLLER, RUBBER	4
1E2118	PIN, SPROCKET	4
1E2121	SPROCKET	4
1E2122	CHAIN, DRIVE	4
1E2126	GEAR, WORM, LEFT	11, 12
1E2127	HELICAL GEAR, 50 HZ, WHITE	11, 12
1E2128	HELICAL GEAR, 60 HZ, BLACK	11, 12
1E2129	SHAFT, DRIVE MOTOR	11, 12
1E2130	BEARING, DRIVE SIDE	11, 12
1E2136	LEVELING SCREW	5, 6
1E2143	PIPING, SHOWER	11, 12
1E2144	ELBOW, FIXER, BELCHING DUCT	11, 12
1E2151	MAIN BODY	11, 12
1E2152	TOP COVER	8
1E2153	BODY, LOWER	5, 6
1E2154	FILM TRAY COVER	10
1E2155	FRAME, TRAY	10
1E2156	COVER, SIDE	5, 6
1E2157	CASE, FAN	5, 6
1E2158	BOX, CONTROL	10
1E2159	STOPPER, MAGNET	8
1E2160	BUSHING, DRYER	4
1E2162	TUBE, WATER SUPPLY	11, 12
1E2163	SPACER, DRYER DUCT	5, 6
1E2164	SPACER, TRANSFORMER	5, 6, 11, 12
1E2166	BUSHING, TRAY COVER	10
1E2167	ELECTRICAL COVER	5, 6
1E2168	SUPPORT, FEED END	5, 6
1E2169	SUPPORT, NON-FEED END	5, 6
1E2171	BELCHING DUCT, DEVELOPER	11, 12
1E2173	BELCHING DUCT, FIXER	11, 12
1E2174	PIPE, OVERFLOW, FIXER	11
1E2175	PIPE, OVERFLOW, DEVELOPER	11
1E2176	DRIVE SHAFT	11, 12
1E2180	NUT, FEED TRAY	10
1E2183	TRAY, GUIDE	10
1E2184	LIGHT TIGHTNESS PLATE	10
1E2186	LIGHT TIGHTNESS CLOTH	10
1E2199	BOX, CONTROL, MAIN	10
1E2200	COVER, CONTROL BOX	10
1E2201	FEED TRAY	10
1E2202	FITTING, REINFORCING, TRAY	10
1E2203	BRACKET, TRAY, NON DRIVE SIDE	10

Numerical Index

Part No.	Description	Figure No.
1E2204	BRACKET, TRAY, DRIVE SIDE	10
1E2205	SUPPORT, RACK, RIGHT	11
1E2206	SUPPORT, RACK, LEFT	11, 12
1E2207	FITTING PLATE, MOTOR	11, 12
1E2208	BRACKET, MOTOR	11, 12
1E2211	BRACKET, PUMP	11, 12
1E2212	FITTING PLATE, HEAT EXCHANGER	11, 12
1E2213	BRACKET, VALVE	5
1E2214	FITTING PLATE, VALVE	5
1E2215	SUPPORT, RACK, RIGHT	12
1E2216	FITTING, MAIN BODY, RIGHT	5, 6
1E2217	FITTING, MAIN BODY, LEFT	5, 6
1E2218	BRACKET, HINGE	11, 12
1E2219	BRACKET, HINGE, RIGHT	5, 6
1E2220	BRACKET, HINGE, LEFT	5, 6
1E2223	BRACKET, DRYER BLOWER	5, 6
1E2224	DUCT, DRYER	5, 6
1E2225	FITTING PLATE, DRYER	5, 6
1E2228	NUT PLATE	5, 6
1E2229	FITTING PLATE, SIDE COVER, UPPER	5, 6
1E2230	FITTING PLATE, SIDE COVER, LOWER	5, 6
1E2231	FITTING PLATE, VENTILATION FAN	5, 6
1E2232	FILTER, DRYER	11, 12
1E2234	GUIDE, UPPER BODY	8
1E2236	RUBBER PLATE, DRIVE MOTOR, LEFT	11, 12
1E2237	RUBBER PLATE, DRIVE MOTOR, RIGHT	11, 12
1E2240	SCREEN, FILTER	11, 12
1E2243	COVER, HOSE, FEED END	5, 6
1E2244	COVER, HOSE, D/F OVERFLOW	5, 6
1E2251	SIDE PLATE, RACK, NONDRIVE	1, 2, 3
1E2252	SIDE PLATE, RACK, DRIVE	1, 2, 3
1E2253	SIDE PLATE, DRYER, DRIVE	4
1E2254	SIDE PLATE, DRYER, NONDRIVE	4
1E2255	COVER, DRYER, LOWER	4
1E2256	COVER, DRYER REAR	4
1E2257	BRACKET, DRYER RACK	4
1E2258	SPACER, DRYER RACK, DRIVE	4
1E2259	SPACER, DRYER RACK NONDRIVE	4
1E2260	ROLLER, RUBBER	4
1E2261	ROLLER, RUBBER	4
1E2262	PIN, IDLE	1, 2, 3
1E2263	BAR, REINFORCING, ENTRANCE	1, 2, 3
1E2264	DUCT, AIR	4
1E2265	SPACER, DRYER RACK	4
1E2271	BRACKET, CONTROL BD	10
1E2272	BRACKET, OPERATION BD	10
1E2275	BRACKET, SWITCH	5, 6
1E2278	BRACKET, TRANSFORMER	5, 6

Numerical Index

Part No.	Description	Figure No.
1E2279	BRACKET, FUSE	5, 6
1E2280	COVER, WIRING	5, 6
1E2282	BRACKET, BOX	5, 6
1E2286	FITTING PLATE, WASH DRAIN VALVE LOWER	6
1E2287	FITTING PLATE, WASH DRAIN VALVE UPPER	6
1E2288	BRACKET, DRAIN TUBE SUPPORT	6
1E2291	SPRING, LOCK, RIGHT SIDE	10
1E2292	SPRING, LOCK, LEFT SIDE	10
1E2293	PLATE, FRICTION	10
1E2294	BRACKET, DRYER END	11, 12
1E2295	BRACKET, DEVELOPER END	11, 12
1E2301	HOSE CLAMP	6
1E2306	HOSE, DEVELOPER TEMPERATURE SENSOR	11, 12
1E2307	HOSE, REPLENISHMENT, LONG	5, 6
1E2308	HEAT EXCHANGER	11, 12
1E2309	TUBING	11, 12
1E2310	CONNECTOR, T, DRAIN	11, 12
1E2311	CONNECTOR, T, REPLENISHMENT	11, 12
1E2312	CONNECTOR, WASH DRAIN	5
1E2313	CONNECTOR, WASH OVERFLOW	5
1E2314	ORIFICE, WASH DRAIN, 0.045	5
1E2315	CONNECTOR, OVERFLOW, OLD	11
1E2316	CONNECTOR, OVERFLOW	12
1E2320	TUBE, WASH DRAIN	6
1E2321	STAND PIPE, DEVELOPER	12
1E2322	STAND PIPE, FIXER	12
1E2326	HOSE, DEVELOPER, HEATER TO TANK	11, 12
1E2327	HOSE, DEVELOPER, PUMP TO HEATER	11, 12
1E2328	HOSE, DEVELOPER, HEAT EXCHANGER TO PUMP	11, 12
1E2329	DEVELOPER HOSE	11, 12
1E2330	FIXER HOSE, SHORT	6, 11, 12
1E2331	HOSE, FIXER	11, 12
1E2332	HOSE, WATER SUPPLY	11, 12
1E2333	FIXER HOSE, LONG	11
1E2334	HOSE, OVERFLOW, FIXER TANK	11, 12
1E2335	HOSE, OVERFLOW, DEVELOPER TANK	11
1E2336	DRAIN HOSE, DEVELOPER	11, 12
1E2337	DRAIN HOSE, FIXER	11, 12
1E2338	HOSE	11, 12
1E2339	HOSE, WASH TANK OVERFLOW, ORIGINAL	11
1E2343	HOSE, OVERFLOW	11
1E2344	HOSE, WASH TANK OVERFLOW, NEW	12
1E2345	HOSE, WATER SUPPLY	12
1E2346	TUBING, DEVELOPER	11, 12
1E2347	TUBING, FIXER	11, 12
1E2348	TUBE, REPLENISHMENT, FILTER TO TANK	5, 6
1E2349	TUBE, REPLENISHMENT, SUPPLY TO FILTER	5, 6
1E2350	HOSE, OVERFLOW, D/F	12

Numerical Index

Part No.	Description	Figure No.
1E2401	DRIVE MOTOR M51	11, 12
1E2404	BLOWER, DRYER, FN52	5, 6
1E2411	HEATER, DEVELOPER, H51A, 1000A PROCESSOR	11, 12
1E2412	HEATER, DEVELOPER, H51, 1000 PROCESSOR	11, 12
1E2413	HEATER, DEVELOPER, H51J, 1000J PROCESSOR	11, 12
1E2421	RECIRCULATION PUMP, DEVELOPER, M52	11, 12
1E2422	RECIRCULATION PUMP, FIXER, M53	11, 12
1E2425	PUMP, REPLENISHMENT, DEVELOPER, M54	5, 6
1E2426	PUMP, REPLENISHMENT, FIXER, M55	5, 6
1E2451	DEVELOPER RACK AY - complete	1
1E2452	FIXER RACK AY - complete	2
1E2453	WASH RACK AY - complete	3
1E2454	DRYER RACK AY - complete	4
1E2455	DEVELOPER CROSSOVER	7
1E2456	FIXER CROSSOVER	7
1E2462	DRYER BRACKET KIT	9
1E2466	SCREWS, NUTS and ASSORTED HARDWARE	11, 12
1E2467	VALVE, POPPET, REPLENISHMENT PUMP	5, 6
1E2501	TRANSFORMER, T51A, 1000A/1000J PROCESSORS	5, 6
1E2502	TRANSFORMER, T51, 1000 PROCESSOR	5, 6
1E2503	FILTER, EMI, NF51	5, 6
1E2504	SWITCH, POWER, SW51	5, 6
1E2505	CAPACITOR, Z51	5, 6
1E2506	INLET CONNECTION	5, 6
1E2507	TERMINAL BLOCK, TB51	5, 6
1E2508	RELAY, SOLID STATE	5, 6
1E2509	SWITCH, DRYER TEMPERATURE SETTING, SW56	10
1E2510	THERMOSTAT, DEVELOPER, OVERTEMP, SW52	11, 12
1E2511	THERMOSTAT, OVERTEMPERATURE, DRYER, SW53	5, 6
1E2512	FUSE HOLDER, F51A/F51	5, 6
1E2513	FUSE, F51A, 15A, 1000A/1000J PROCESSORS	5, 6
1E2514	FUSE, F51, 8A, 1000 PROCESSOR	5, 6
1E2518	SENSOR, DEVELOPER TEMPERATURE, SE51	11, 12
1E2519	SENSOR, DRYER TEMPERATURE, SE52	5, 6
1E2523	RELAY, DRIVE MOTOR, RY51	10
1E2526	CIRCUIT BOARD, IO	10
1E2527	CIRCUIT BOARD, IOM	10
1E2528	CIRCUIT BOARD, DRIVE, 1000/1000A PROCESSORS	10
1E2529	CIRCUIT BOARD, FILM SENSOR	10
1E2530	CIRCUIT BOARD, CONTROL	10
1E2534	CIRCUIT BOARD, DRIVE, 1000J PROCESSOR	10
1E2535	FAN, VENTILATION, FH51J, 1000J PROCESSOR	5, 6
1E2536	FAN, VENTILATION, FN51A, 1000A PROCESSOR	5, 6
1E2537	FAN, VENTILATION, FN51, 1000 PROCESSOR	5, 6
1E2543	FUSE HOLDER, F52	5, 6
1E2544	FUSE HOLDER, F53A/F53	5, 6
1E2546	FUSE, 2.0 A, 1000A/1000J PROCESSORS	5, 6, 10
1E2547	FUSE, 1.6A, 1000 PROCESSOR	5, 6, 10

Numerical Index

Part No.	Description	Figure No.
1E2548	FUSE, F52, 0.2A	5, 6
1E2569	SPACER, CONTROL BOARD	10
1E2570	SPACER, FILM SENSOR	10
1E2571	SWITCH, COVER, SW55	11, 12
1E2572	SWITCH, COVER, SW54	11, 12
1E2573	KNOB	10
1E2576	RELAY, SOLID STATE, SSR1 - SSR6, DRIVE BOARD	10
1E2920	NUT	10
1E2953	E-RING	1, 2, 3
1E2957	PIN, WORM GEAR	12
9B8381	CLAMP, HOSE, ASSORTED SIZES	11, 12

Section 4: Alphabetical Index

Alphabetical Index

Part No.	Description	Figure No.
1E2263	BAR, REINFORCING, ENTRANCE	1, 2, 3
1E2057	BAR, REINFORCING, EXIT	1, 2, 3, 4
1E2130	BEARING, DRIVE SIDE	11, 12
1E2171	BELCHING DUCT, DEVELOPER	11, 12
1E2173	BELCHING DUCT, FIXER	11, 12
1E2404	BLOWER, DRYER, FN52	5, 6
1E2153	BODY, LOWER	5, 6
1E2158	BOX, CONTROL	10
1E2199	BOX, CONTROL, MAIN	10
1E2282	BRACKET, BOX	5, 6
1E2271	BRACKET, CONTROL BD	10
1E2295	BRACKET, DEVELOPER END	11, 12
1E2288	BRACKET, DRAIN TUBE SUPPORT	6
1E2223	BRACKET, DRYER BLOWER	5, 6
1E2294	BRACKET, DRYER END	11, 12
1E2257	BRACKET, DRYER RACK	4
1E2279	BRACKET, FUSE	5, 6
1E2218	BRACKET, HINGE	11, 12
1E2220	BRACKET, HINGE, LEFT	5, 6
1E2219	BRACKET, HINGE, RIGHT	5, 6
1E2208	BRACKET, MOTOR	11, 12
1E2272	BRACKET, OPERATION BD	10
1E2211	BRACKET, PUMP	11, 12
1E2275	BRACKET, SWITCH	5, 6
1E2278	BRACKET, TRANSFORMER	5, 6
1E2204	BRACKET, TRAY, DRIVE SIDE	10
1E2203	BRACKET, TRAY, NON DRIVE SIDE	10
1E2213	BRACKET, VALVE	5
1E2160	BUSHING, DRYER	4
1E2051	BUSHING, RACKS	1, 2, 3
1E2166	BUSHING, TRAY COVER	10
1E2505	CAPACITOR, Z51	5, 6
1E2157	CASE, FAN	5, 6
1E2122	CHAIN, DRIVE	4
1E2530	CIRCUIT BOARD, CONTROL	10
1E2528	CIRCUIT BOARD, DRIVE, 1000/1000A PROCESSORS	10
1E2534	CIRCUIT BOARD, DRIVE, 1000J PROCESSOR	10
1E2529	CIRCUIT BOARD, FILM SENSOR	10
1E2526	CIRCUIT BOARD, IO	10
1E2527	CIRCUIT BOARD, IOM	10
9B8381	CLAMP, HOSE, ASSORTED SIZES	11, 12
1E2003	CONDENSER	11, 12
1E2316	CONNECTOR, OVERFLOW	12
1E2315	CONNECTOR, OVERFLOW, OLD	11
1E2310	CONNECTOR, T, DRAIN	11, 12
1E2311	CONNECTOR, T, REPLENISHMENT	11, 12

Alphabetical Index

Part No.	Description	Figure No.
1E2312	CONNECTOR, WASH DRAIN	5
1E2313	CONNECTOR, WASH OVERFLOW	5
1E2200	COVER, CONTROL BOX	10
1E2256	COVER, DRYER REAR	4
1E2110	COVER, DRYER, FRONT	4
1E2255	COVER, DRYER, LOWER	4
1E2064	COVER, EVAPORATION	1
1E2244	COVER, HOSE, D/F OVERFLOW	5, 6
1E2243	COVER, HOSE, FEED END	5, 6
1E2156	COVER, SIDE	5, 6
1E2280	COVER, WIRING	5, 6
1E2071	C-RING	1, 2, 3
1E2455	DEVELOPER CROSSOVER	7
1E2329	DEVELOPER HOSE	11, 12
1E2451	DEVELOPER RACK AY - complete	1
1E2336	DRAIN HOSE, DEVELOPER	11, 12
1E2337	DRAIN HOSE, FIXER	11, 12
1E2401	DRIVE MOTOR M51	11, 12
1E2176	DRIVE SHAFT	11, 12
1E2462	DRYER BRACKET KIT	9
1E2454	DRYER RACK AY - complete	4
1E2264	DUCT, AIR	4
1E2224	DUCT, DRYER	5, 6
1E2144	ELBOW, FIXER, BELCHING DUCT	11, 12
1E2167	ELECTRICAL COVER	5, 6
1E2953	E-RING	1, 2, 3
1E2535	FAN, VENTILATION, FH51J, 1000J PROCESSOR	5, 6
1E2537	FAN, VENTILATION, FN51, 1000 PROCESSOR	5, 6
1E2536	FAN, VENTILATION, FN51A, 1000A PROCESSOR	5, 6
1E2201	FEED TRAY	10
1E2154	FILM TRAY COVER	10
1E2035	FILTER	5, 6
1E2232	FILTER, DRYER	11, 12
1E2503	FILTER, EMI, NF51	5, 6
1E2225	FITTING PLATE, DRYER	5, 6
1E2212	FITTING PLATE, HEAT EXCHANGER	11, 12
1E2207	FITTING PLATE, MOTOR	11, 12
1E2230	FITTING PLATE, SIDE COVER, LOWER	5, 6
1E2229	FITTING PLATE, SIDE COVER, UPPER	5, 6
1E2214	FITTING PLATE, VALVE	5
1E2231	FITTING PLATE, VENTILATION FAN	5, 6
1E2286	FITTING PLATE, WASH DRAIN VALVE LOWER	6
1E2287	FITTING PLATE, WASH DRAIN VALVE UPPER	6
1E2029	FITTING	11, 12
1E2112	FITTING, AIR ADJUSTMENT	4
1E2217	FITTING, MAIN BODY, LEFT	5, 6
1E2216	FITTING, MAIN BODY, RIGHT	5, 6
1E2202	FITTING, REINFORCING, TRAY	10

Alphabetical Index

Part No.	Description	Figure No.
1E2456	FIXER CROSSOVER	7
1E2333	FIXER HOSE, LONG	11
1E2330	FIXER HOSE, SHORT	6, 11, 12
1E2452	FIXER RACK AY - complete	2
1E2155	FRAME, TRAY	10
1E2512	FUSE HOLDER, F51A/F51	5, 6
1E2543	FUSE HOLDER, F52	5, 6
1E2544	FUSE HOLDER, F53A/F53	5, 6
1E2547	FUSE, 1.6A, 1000 PROCESSOR	5, 6, 10
1E2546	FUSE, 2.0 A, 1000A/1000J PROCESSORS	5, 6, 10
1E2514	FUSE, F51, 8A, 1000 PROCESSOR	5, 6
1E2513	FUSE, F51A, 15A, 1000A/1000J PROCESSORS	5, 6
1E2548	FUSE, F52, 0.2A	5, 6
1E2002	GEAR BOX	11, 12
1E2103	GEAR	1, 2, 3, 4
1E2052	GEAR, DRIVE	1, 2, 3, 4
1E2081	GEAR, IDLE	1, 2, 3
1E2126	GEAR, WORM, LEFT	11, 12
1E2058	GUIDE STOP	1, 7
1E2065	GUIDE, BOTTOM	1, 2, 3
1E2076	GUIDE, BOTTOM, DEVELOPER	1
1E2109	GUIDE, DRYER	4
1E2083	GUIDE, OUTLET	3
1E2234	GUIDE, UPPER BODY	8
1E2031	HANDLE	8
1E2078	HANDLE, EVAP. COVER	1
1E2308	HEAT EXCHANGER	11, 12
1E2412	HEATER, DEVELOPER, H51, 1000 PROCESSOR	11, 12
1E2411	HEATER, DEVELOPER, H51A, 1000A PROCESSOR	11, 12
1E2413	HEATER, DEVELOPER, H51J, 1000J PROCESSOR	11, 12
1E2015	HEATER, DRYER, H52, 1000 PROCESSOR	5, 6
1E2005	HEATER, DRYER, H52A, 1000A/1000J PROCESSORS	5, 6
1E2127	HELICAL GEAR, 50 HZ, WHITE	11, 12
1E2128	HELICAL GEAR, 60 HZ, BLACK	11, 12
1E2026	HINGE	11, 12
1E2301	HOSE CLAMP	6
1E2338	HOSE	11, 12
1E2306	HOSE, DEVELOPER TEMPERATURE SENSOR	11, 12
1E2328	HOSE, DEVELOPER, HEAT EXCHANGER TO PUMP	11, 12
1E2326	HOSE, DEVELOPER, HEATER TO TANK	11, 12
1E2327	HOSE, DEVELOPER, PUMP TO HEATER	11, 12
1E2331	HOSE, FIXER	11, 12
1E2343	HOSE, OVERFLOW	11
1E2350	HOSE, OVERFLOW, D/F	12
1E2335	HOSE, OVERFLOW, DEVELOPER TANK	11
1E2334	HOSE, OVERFLOW, FIXER TANK	11, 12
1E2307	HOSE, REPLENISHMENT, LONG	5, 6
1E2344	HOSE, WASH TANK OVERFLOW, NEW	12

Alphabetical Index

Part No.	Description	Figure No.
1E2339	HOSE, WASH TANK OVERFLOW, ORIGINAL	11
1E2332	HOSE, WATER SUPPLY	11, 12
1E2345	HOSE, WATER SUPPLY	12
1E2506	INLET CONNECTION	5, 6
1E2573	KNOB	10
1E2136	LEVELING SCREW	5, 6
1E2186	LIGHT TIGHTNESS CLOTH	10
1E2184	LIGHT TIGHTNESS PLATE	10
1E2016	MAGNET	8
1E2151	MAIN BODY	11, 12
1E2228	NUT PLATE	5, 6
1E2920	NUT	10
1E2180	NUT, FEED TRAY	10
1E2314	ORIFICE, WASH DRAIN, 0.045	5
1E2045	O-RING	12
1E2077	PIN, FIXED	1
1E2055	PIN, GEAR	1, 2, 3
1E2054	PIN, HELICAL	1, 2, 3, 4, 11, 12
1E2262	PIN, IDLE	1, 2, 3
1E2056	PIN, IDLE, GEAR	1, 2, 3, 4
1E2118	PIN, SPROCKET	4
1E2957	PIN, WORM GEAR	12
1E2175	PIPE, OVERFLOW, DEVELOPER	11
1E2174	PIPE, OVERFLOW, FIXER	11
1E2143	PIPING, SHOWER	11, 12
1E2293	PLATE, FRICTION	10
1E2425	PUMP, REPLENISHMENT, DEVELOPER, M54	5, 6
1E2426	PUMP, REPLENISHMENT, FIXER, M55	5, 6
1E2421	RECIRCULATION PUMP, DEVELOPER, M52	11, 12
1E2422	RECIRCULATION PUMP, FIXER, M53	11, 12
1E2523	RELAY, DRIVE MOTOR, RY51	10
1E2508	RELAY, SOLID STATE	5, 6
1E2576	RELAY, SOLID STATE, SSR1 - SSR6, DRIVE BOARD	10
1E2062	ROLLER, DRIVE	1, 2, 3, 4
1E2108	ROLLER, DRIVE, DRYER	4
1E2063	ROLLER, DRIVE, RUBBER	1, 3
1E2115	ROLLER, RUBBER	4
1E2260	ROLLER, RUBBER	4
1E2261	ROLLER, RUBBER	4
1E2236	RUBBER PLATE, DRIVE MOTOR, LEFT	11, 12
1E2237	RUBBER PLATE, DRIVE MOTOR, RIGHT	11, 12
1E2240	SCREEN, FILTER	11, 12
1E2466	SCREWS, NUTS and ASSORTED HARDWARE	11, 12
1E2518	SENSOR, DEVELOPER TEMPERATURE, SE51	11, 12
1E2519	SENSOR, DRYER TEMPERATURE, SE52	5, 6
1E2129	SHAFT, DRIVE MOTOR	11, 12
1E2253	SIDE PLATE, DRYER, DRIVE	4
1E2254	SIDE PLATE, DRYER, NONDRIVE	4

Alphabetical Index

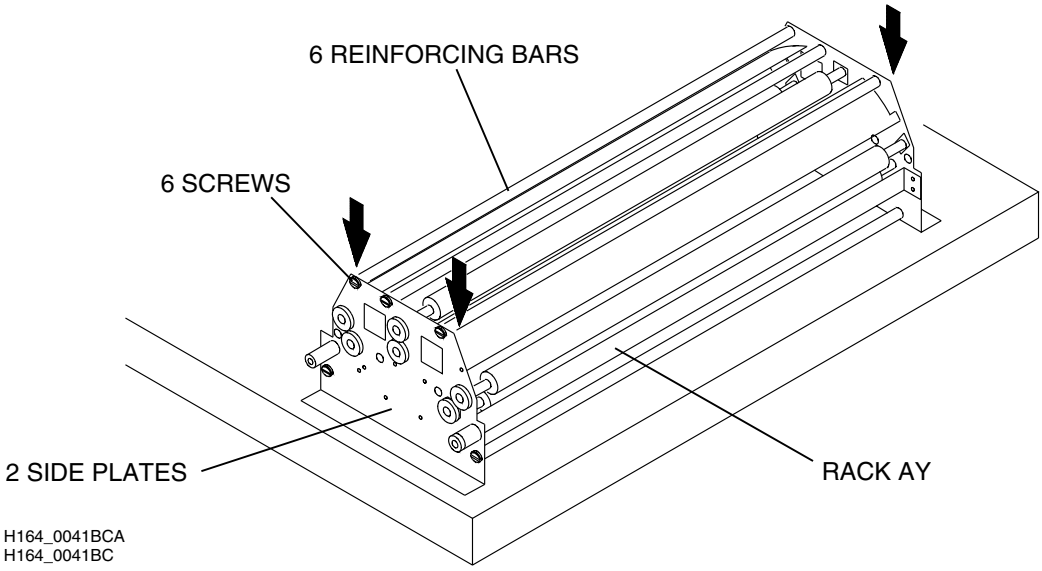
Part No.	Description	Figure No.
1E2252	SIDE PLATE, RACK, DRIVE	1, 2, 3
1E2251	SIDE PLATE, RACK, NONDRIVE	1, 2, 3
1E2039	SPACER, AIR TUBE	4
1E2569	SPACER, CONTROL BOARD	10
1E2059	SPACER, DRIVE SIDE, GROOVED	1, 2, 3
1E2163	SPACER, DRYER DUCT	5, 6
1E2259	SPACER, DRYER RACK NONDRIVE	4
1E2265	SPACER, DRYER RACK	4
1E2258	SPACER, DRYER RACK, DRIVE	4
1E2104	SPACER, DRYER SPROCKET	4
1E2038	SPACER, DRYER, NON-DRIVE SIDE LOWER	4
1E2040	SPACER, DRYER, NON-DRIVE SIDE	4
1E2570	SPACER, FILM SENSOR	10
1E2079	SPACER, LARGE	1, 2
1E2060	SPACER, RACK SUPPORT	1, 2, 3
1E2061	SPACER, SHORT	1, 2, 3
1E2164	SPACER, TRANSFORMER	5, 6, 11, 12
1E2080	SPACER, WASH RACK, DRIVE	3
1E2053	SPRING, 053	1, 2, 3, 4
1E2066	SPRING, 066	1
1E2102	SPRING, 102	4
1E2106	SPRING, COIL	4
1E2292	SPRING, LOCK, LEFT SIDE	10
1E2291	SPRING, LOCK, RIGHT SIDE	10
1E2121	SPROCKET	4
1E2105	SPROCKET, DRIVE	4
1E2321	STAND PIPE, DEVELOPER	12
1E2322	STAND PIPE, FIXER	12
1E2159	STOPPER, MAGNET	8
1E2168	SUPPORT, FEED END	5, 6
1E2169	SUPPORT, NON-FEED END	5, 6
1E2206	SUPPORT, RACK, LEFT	11, 12
1E2205	SUPPORT, RACK, RIGHT	11
1E2215	SUPPORT, RACK, RIGHT	12
1E2572	SWITCH, COVER, SW54	11, 12
1E2571	SWITCH, COVER, SW55	11, 12
1E2509	SWITCH, DRYER TEMPERATURE SETTING, SW56	10
1E2504	SWITCH, POWER, SW51	5, 6
1E2507	TERMINAL BLOCK, TB51	5, 6
1E2510	THERMOSTAT, DEVELOPER, OVERTEMP, SW52	11, 12
1E2511	THERMOSTAT, OVERTEMPERATURE, DRYER, SW53	5, 6
1E2152	TOP COVER	8
1E2502	TRANSFORMER, T51, 1000 PROCESSOR	5, 6
1E2501	TRANSFORMER, T51A, 1000A/1000J PROCESSORS	5, 6
1E2183	TRAY, GUIDE	10
1E2113	TUBE, AIR	4
1E2348	TUBE, REPLENISHMENT, FILTER TO TANK	5, 6
1E2349	TUBE, REPLENISHMENT, SUPPLY TO FILTER	5, 6

Alphabetical Index

Part No.	Description	Figure No.
1E2320	TUBE, WASH DRAIN	6
1E2162	TUBE, WATER SUPPLY	11, 12
1E2309	TUBING	11, 12
1E2346	TUBING, DEVELOPER	11, 12
1E2347	TUBING, FIXER	11, 12
1E2036	VALVE, BLUE	5
1E2467	VALVE, POPPET, REPLENISHMENT PUMP	5, 6
1E2030	VALVE, RED	5, 6
1E2011	VALVE, SOLENOID, WATER, SL51	5, 6
1E2453	WASH RACK AY - complete	3
1E2027	WASHER	11, 12

Section 5: Adjustments

Adjusting the Squareness of the RACK AY



Important

Use this procedure for:

- DEVELOPER RACK
- FIXER RACK
- WASH RACK

[1] Remove the RACK AY.

[2] Place the RACK AY on a flat surface with the top down.

Important

Do not remove the 6 SCREWS.

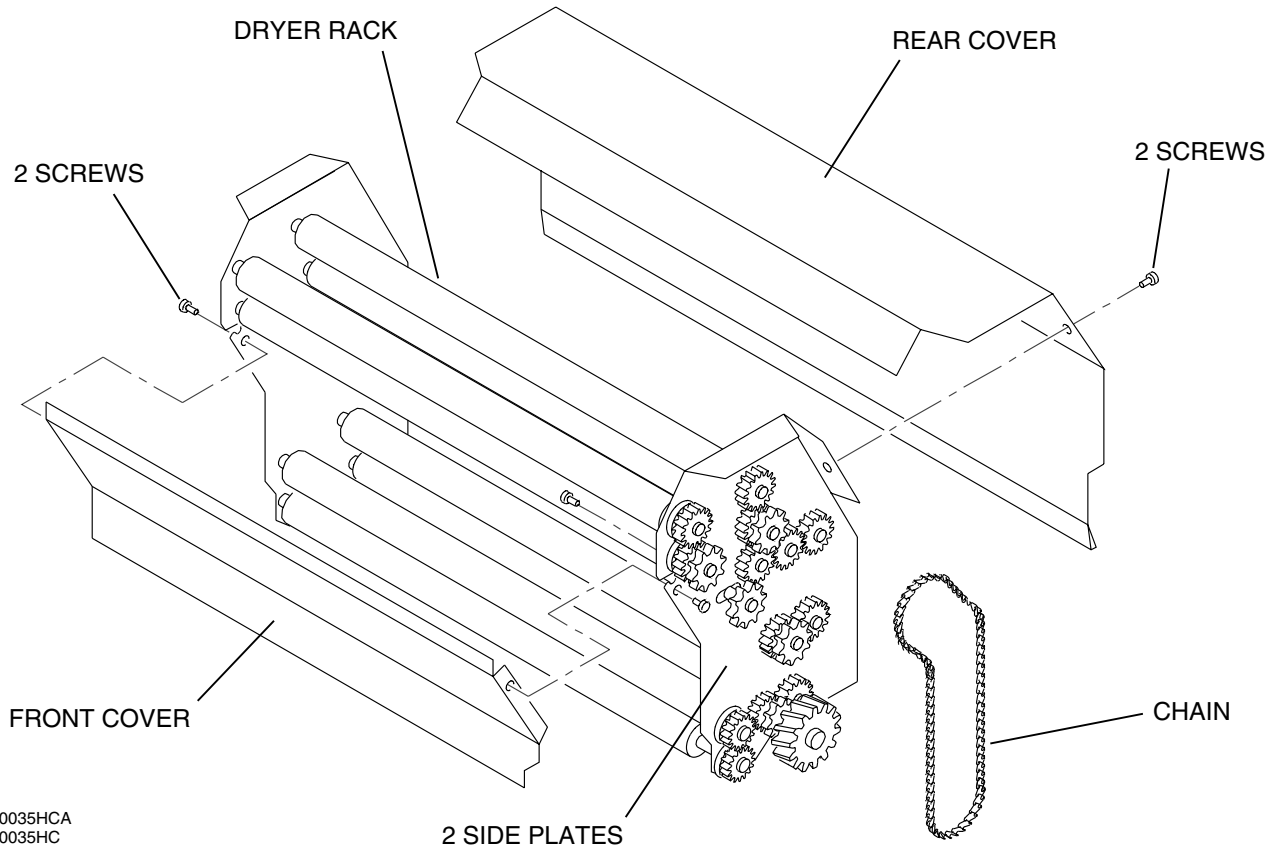
[3] Loosen the 6 SCREWS on the 6 REINFORCING BARS at one end of the RACK AY only.

[4] Press down on the 2 SIDE PLATES to make uniform contact with the flat surface.

[5] Tighten the 6 SCREWS on the 6 REINFORCING BARS.

[6] Install the RACK AY.

Adjusting the Squareness of the DRYER RACK



[1] Remove the DRYER RACK.

Important

Do not remove the SCREWS on the COVERS or the REINFORCING BARS.

[2] Loosen the 2 SCREWS on:

- FRONT COVER
- REAR COVER

[3] Place the DRYER RACK on a flat surface with the top down.

Important

The 4 SCREWS and the 4 REINFORCING BARS are not visible in the graphic.

[4] Loosen the 4 SCREWS on one end of the 4 REINFORCING BARS.

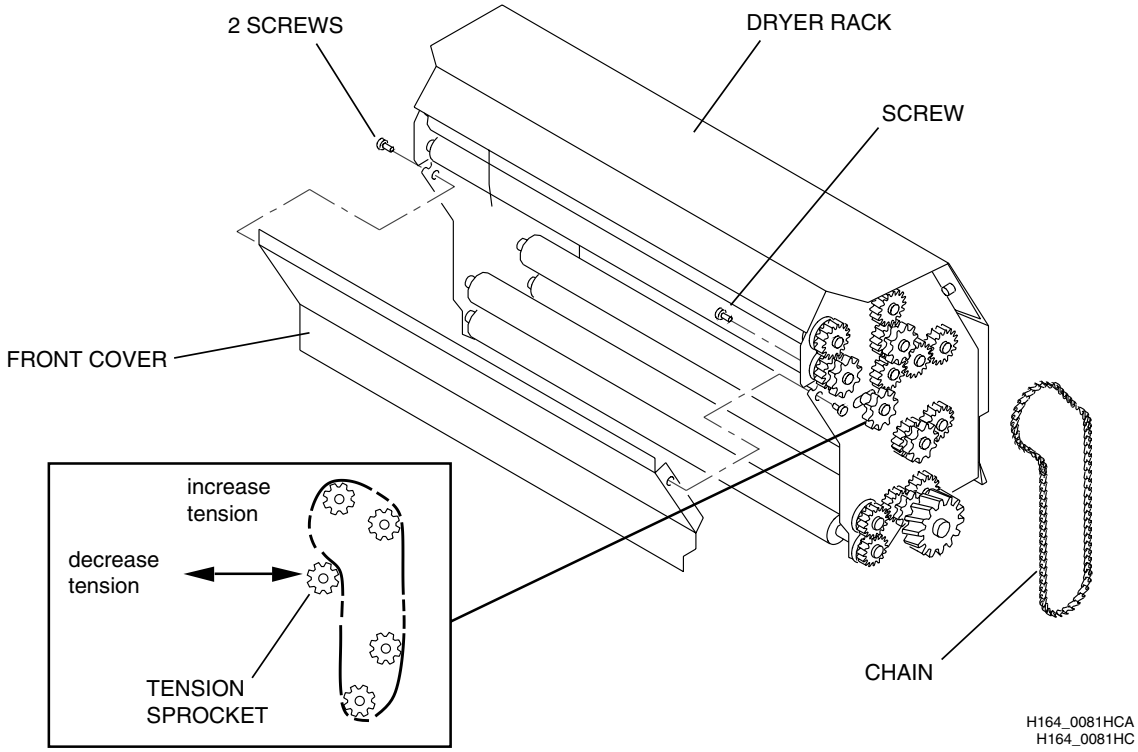
[5] Press down on the 2 SIDE PLATES to make uniform contact with the flat surface.

[6] Tighten:

- 4 SCREWS on the 4 REINFORCING BARS
- 2 SCREWS on the FRONT COVER
- 2 SCREWS on the REAR COVER

[7] Install the DRYER RACK into the PROCESSOR.

Adjusting the Tension of the DRIVE CHAIN



[1] Remove the DRYER RACK.

Important

Do not remove the 2 SCREWS.

[2] Loosen the 2 SCREWS.

[3] Remove the FRONT COVER.

Important

Do not remove the SCREW.

[4] Loosen the SCREW on the TENSION SPROCKET.

[5] Adjust the tension of the CHAIN by moving the TENSION SPROCKET.

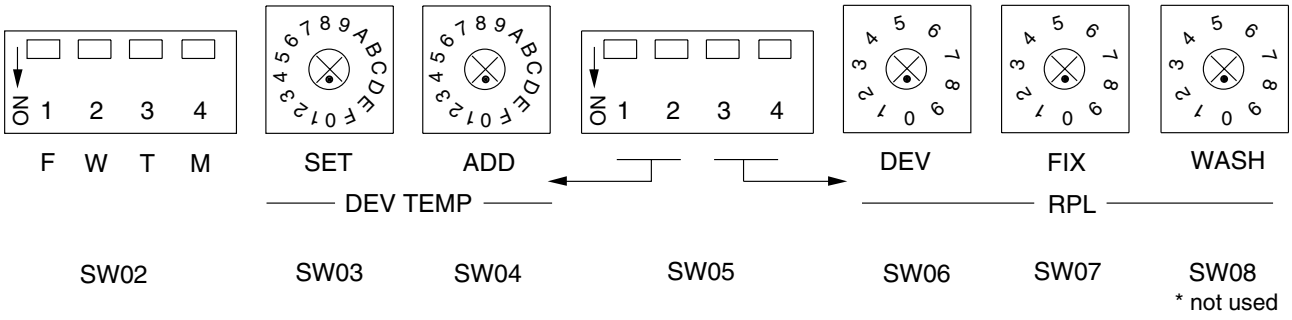
[6] Tighten the SCREW on the TENSION SPROCKET.

[7] Install the FRONT COVER on the RACK.

[8] Tighten the 2 SCREWS.

[9] Install the DRYER RACK into the PROCESSOR.

Setting the Defaults of the SWITCHES



H164_0001BC

ESD

Possible damage from electrostatic discharge.

[1] Do Removing the CONTROL BOX COVER.

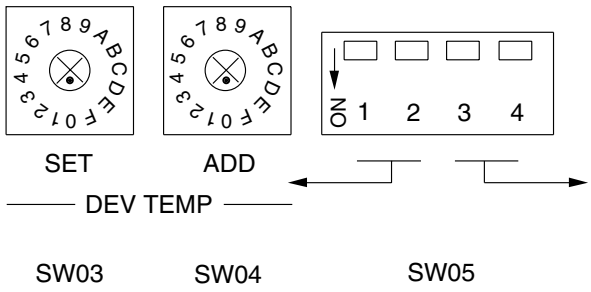
[2] Locate SW02.

[3] Check that the SWITCHES are set correctly:

- SW02-1 is in the “OFF” position for 60 Hz frequency
- SW02-1 is in the “ON” position for 50 Hz frequency
- SW02-2, SW02-3 and SW02-4 are in the “OFF” position

[4] Install the CONTROL BOX COVER. See Removing the CONTROL BOX COVER.

Adjusting the Developer Temperature



H164_0038AC

[1] Do Removing the CONTROL BOX COVER.

Developer Temperature, 32 - 35°C (89.6 - 95.0°F)

SW05-1 OFF, Adjust SW03:			
Set Point	Temperature	Set Point	Temperature
0	32.0°C (89.6°F)	8	33.6°C (92.5°F)
1	32.2°C (90.0°F)	9	33.8°C (92.8°F)
2	32.4°C (90.3°F)	A	34.0°C (93.2°F)
3	32.6°C (90.7°F)	B	34.2°C (93.6°F)
4	32.8°C (91.0°F)	C	34.4°C (93.9°F)
5	33.0°C (91.4°F)	D	34.6°C (94.3°F)
6	33.2°C (91.8°F)	E	34.8°C (94.6°F)
7	33.4°C (92.1°F)	F	35.0°C (95.0°F)

Developer Temperature, 35 - 38°C (95.0 - 100.4°F)

SW05-1 ON, Adjust SW03:			
Set Point	Temperature	Set Point	Temperature
0	35.0°C (95.0°F)	8	36.6°C (97.9°F)
1	35.2°C (95.4°F)	9	36.8°C (98.2°F)
2	35.4°C (95.7°F)	A	37.0°C (98.6°F)
3	35.6°C (96.1°F)	B	37.2°C (99.0°F)
4	35.8°C (96.4°F)	C	37.4°C (99.3°F)
5	36.0°C (96.8°F)	D	37.6°C (99.7°F)
6	36.2°C (97.2°F)	E	37.8°C (100.0°F)
7	36.4°C (97.5°F)	F	38.0°C (100.4°F)

[2] Set the developer temperature between 32.0 - 35.0°C (89.6 - 95.0°F).

(a) Move SW05-1 to the “OFF” position.

(b) Use the table to adjust SW03.

[3] Set the developer temperature between 35.0 - 38.0°C (95.0 - 100.4°F).

(a) Move SW05-1 to the “ON” position.

(b) Use the table to adjust SW03.

[4] Measure the temperature of the developer solution.

Note

The temperature of the developer solution might not match the set point. If necessary, you can adjust the temperature.

[5] Does the temperature of the developer solution match the set point?

Yes	No
a. Wait 45 minutes. b. Check the developer temperature again. c. If the temperature is correct, advance to Step 7.	Continue with Step 6.

Adding to Developer Temperature

SW04:			
Set point	Add/Subtract Temperature	Set point	Add/Subtract Temperature
0	0.0°C (0.0°F)	8	0.8°C (1.44°F)
1	0.1°C (0.18°F)	9	0.9°C (1.62°F)
2	0.2°C (0.36°F)	A	1.0°C (1.8°F)
3	0.3°C (0.54°F)	B	1.1°C (1.98°F)
4	0.4°C (0.72°F)	C	1.2°C (1.32°F)
5	0.5°C (0.90°F)	D	1.3°C (2.34°F)
6	0.6°C (1.08°F)	E	1.4°C (2.52°F)
7	0.7°C (1.26°F)	F	1.5°C (2.70°F)

Important

The temperature is added or subtracted in 0.1°C (0.18°F) increments.

[6] Use SW04 to add to or subtract from the developer temperature.

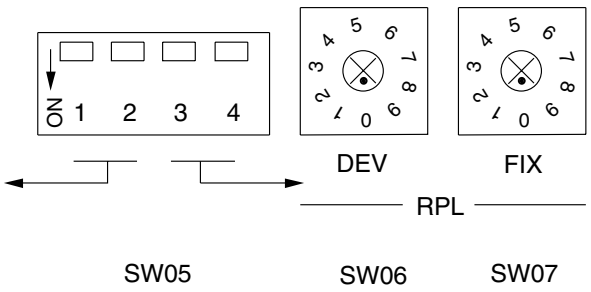
(a) Move SW05-2 to the “OFF” position to subtract from the developer temperature.

(b) Move SW05-2 to the “ON” position to add to the developer temperature.

(c) Use the table at the left to set SWITCH SW04.

[7] Install the CONTROL BOX COVER. See Removing the CONTROL BOX COVER.

Adjusting the Developer and Fixer Replenishment Rates



H164_0039AC

ESD

Possible damage from electrostatic discharge.

[1] Do Removing the CONTROL BOX COVER.

[2] Use the Replenishment Rate table to set the correct replenishment rate.

(a) Adjust SW06 to set the developer replenishment rate.

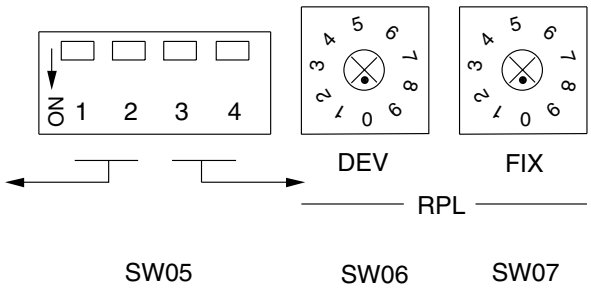
(b) Adjust SW07 to set the fixer replenishment rate.

[3] Install the CONTROL BOX COVER. See Removing the CONTROL BOX COVER.

Replenishment Rate

Set point of SW06 or SW07	Volume in cm^3*	60 Hz, SW02-1 OFF. Time for PUMP ON in seconds	50 Hz, SW02-1 ON. Time for PUMP ON in seconds
0	50	7.0	8.4
1	60	8.4	10.0
2	70	9.8	11.6
3	80	11.2	13.4
4	90	12.6	15.0
5	100	14.0	16.6
6	110	15.2	18.4
7	120	16.6	20.0
8	130	18.0	21.6
9	140	19.4	23.4
* Volume for film size 35 x 43 cm (11 x 14 in.)			

Setting the “Regular” Replenishment Mode



H164_0039AC

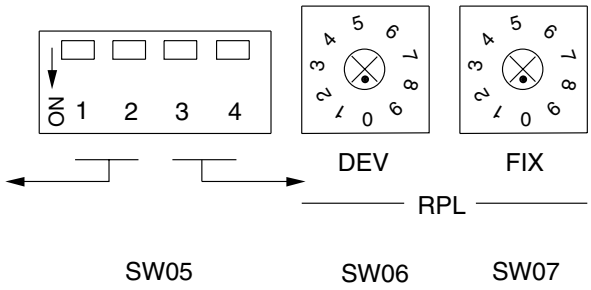
ESD
Possible damage from electrostatic discharge.

[1] Do Removing the CONTROL BOX COVER.

[2] Move SW05-3 to the “OFF” position.

[3] Install the CONTROL BOX COVER. See Removing the CONTROL BOX COVER.

Setting the “Flooded” Replenishment Mode



H164_0039AC

ESD
Possible damage from electrostatic discharge.

[1] Do Removing the CONTROL BOX COVER.

[2] Move SWITCH SW05-3 to the “ON” position.

[3] Select the replenishment for the “Flooded” Mode.

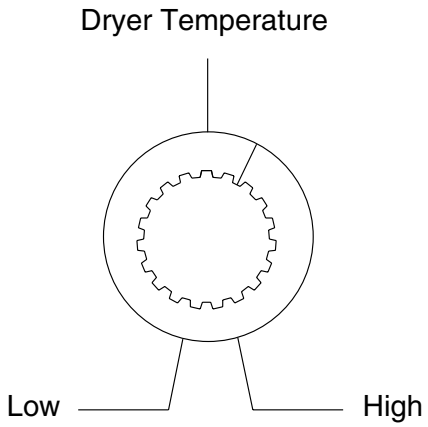
(a) Move SW05-4 to the “ON” position for “Flooded” replenishment at 50% of the operating mode rate.

(b) Move SW05-4 to the “OFF” position for “Flooded” replenishment at 25% of the operating mode rate.

Note
When replenishment for the “Flooded” Mode is selected, the REPLENISHMENT PUMPS will operate every 20 minutes.

[4] Install the CONTROL BOX COVER. See Removing the CONTROL BOX COVER.

Adjusting the Temperature of the DRYER



H164_0037AC

[1] Locate the DRYER SWITCH on the front of the CONTROL BOX COVER.

[2] Use the table Temperature of the DRYER to set the temperature of the DRYER. Count the increments between the “LOW” and “HIGH” positions.

Temperature of the DRYER

Position	Temperature	Position	Temperature
LOW	35°C (95°F)	8	51°C (124°F)
1	37°C (99°F)	9	53°C (127°F)
2	39°C (102°F)	10	55°C (131°F)
3	41°C (106°F)	11	57°C (135°F)
4	43°C (109°F)	12	59°C (138°F)
5	45°C (113°F)	13	61°C (142°F)
6	47°C (117°F)	14	63°C (145°F)
7	49°C (120°F)	HIGH	65°C (149°F)

Adjusting the Speed of the DRYER BLOWER

[1] Do Adjusting the Speed of the DRYER BLOWER to actuate the high speed and slow speed modes of the DRYER BLOWER.

Important

Do not exceed 24 V DC in the high speed mode or 15 V DC in the slow speed mode.

[2] Measure the voltage between P3 and P1 (GND) on the DRIVE BOARD with the DRYER BLOWER at high speed and at slow speed.

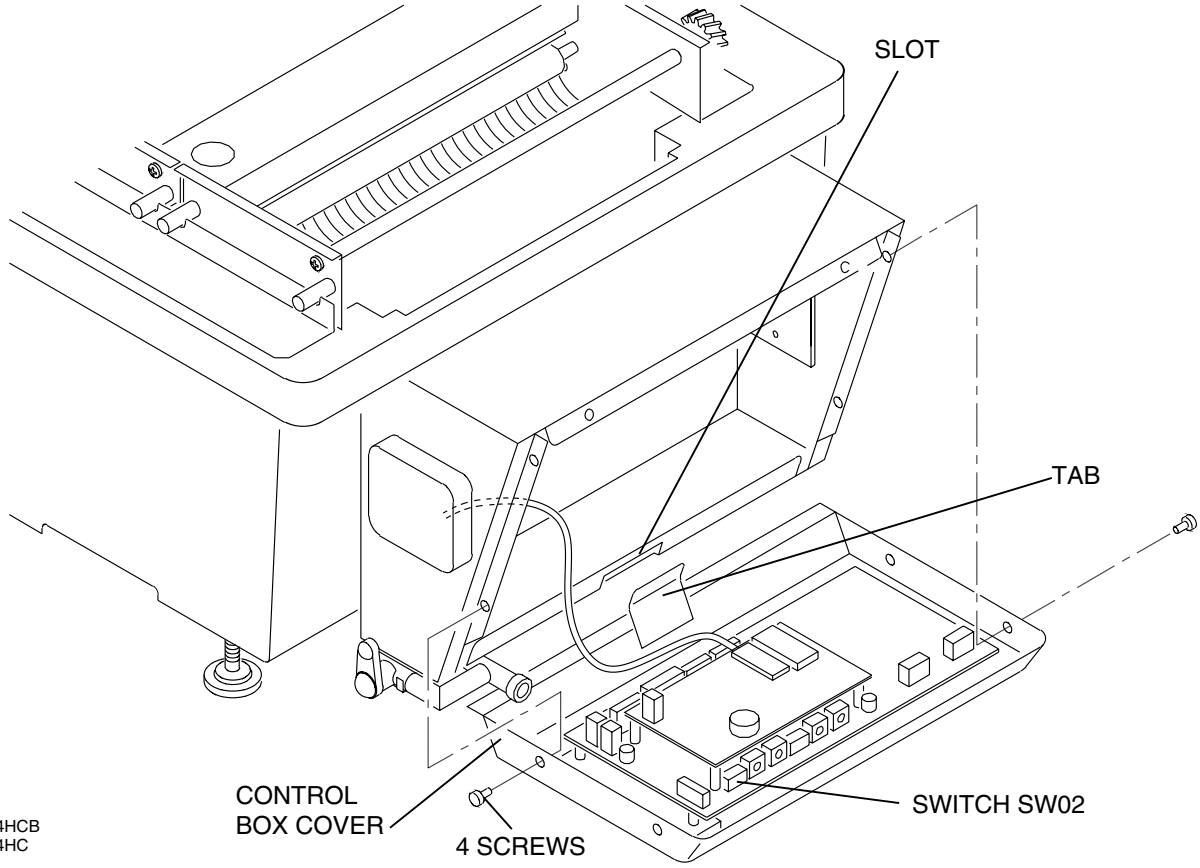
[3] Adjust VR1 to change the voltages:

Position	Mode	Voltage
P3 and P1 (GND) on the DRIVE BOARD	high speed	23 - 24 V DC
P3 and P1 (GND) on the DRIVE BOARD	slow speed	13 - 15 V DC

[4] If you make adjustments, check the high speed and slow speed voltages again.

Section 6: Replacements

Removing the CONTROL BOX COVER



H164_0104HCB
H164_0104HC

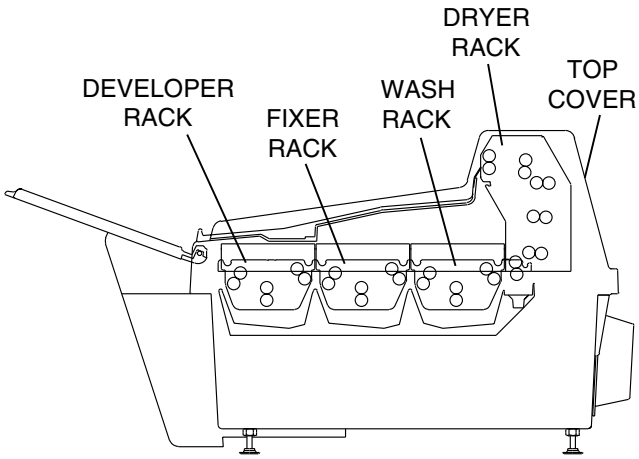
ESD
Possible damage from electrostatic discharge.

[1] Remove:
- 4 SCREWS
- CONTROL BOX COVER

[2] Place the TAB into the SLOT.

[3] Install:
- CONTROL BOX COVER
- 4 SCREWS

Opening the PROCESSOR



H164_0072ACA
H164_0072AC

Warning

Dangerous Voltage

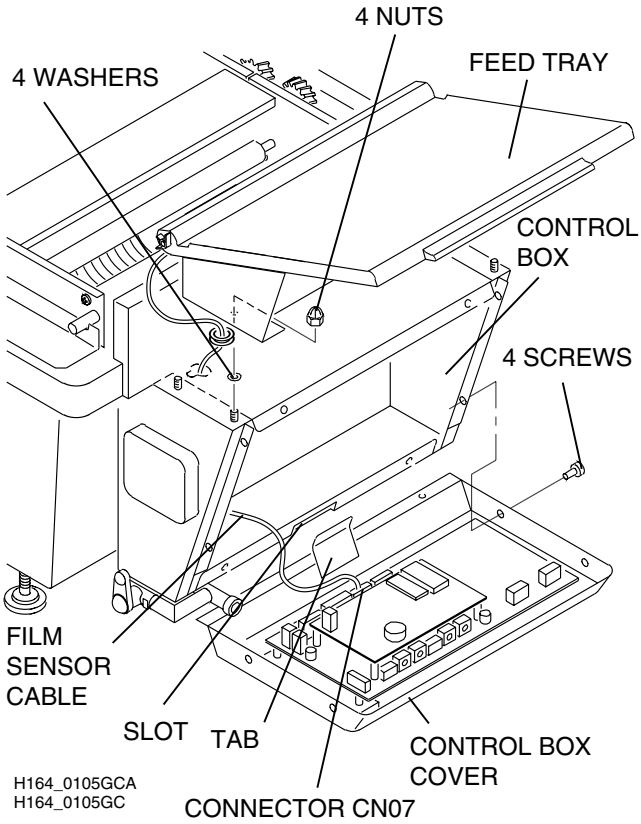
[1] De-energize the PROCESSOR.

[2] Drain the TANKS.

[3] Disconnect the main power.

[4] Remove:

- TOP COVER
- DEVELOPER RACK
- FIXER RACK
- WASH RACK
- DRYER RACK



H164_0105GCA
H164_0105GC

Caution

- Possible damage from electrostatic discharge.
- Be careful not to damage the FILM SENSOR CABLE.

[5] Remove:

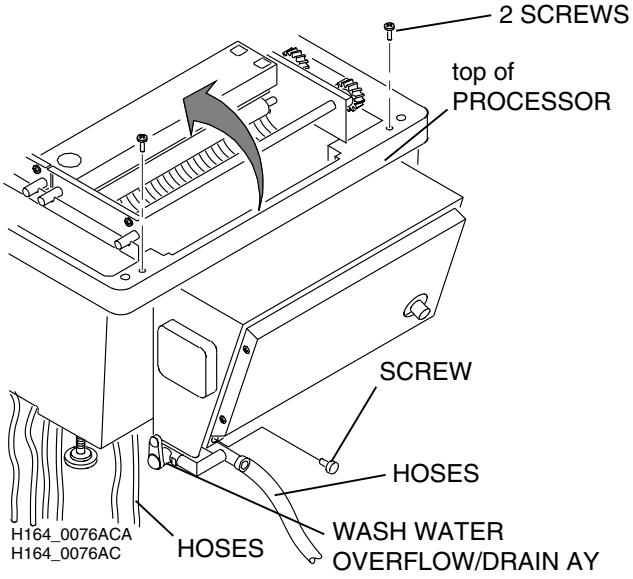
- 4 SCREWS
- CONTROL BOX COVER

[6] Place the TAB into the SLOT.

[7] Disconnect CONNECTOR CN07.

[8] Remove:

- 4 NUTS
- 4 WASHERS
- FEED TRAY



[9] Remove:

- 2 SCREWS
- SCREW from WASH WATER OVERFLOW/ DRAIN AY

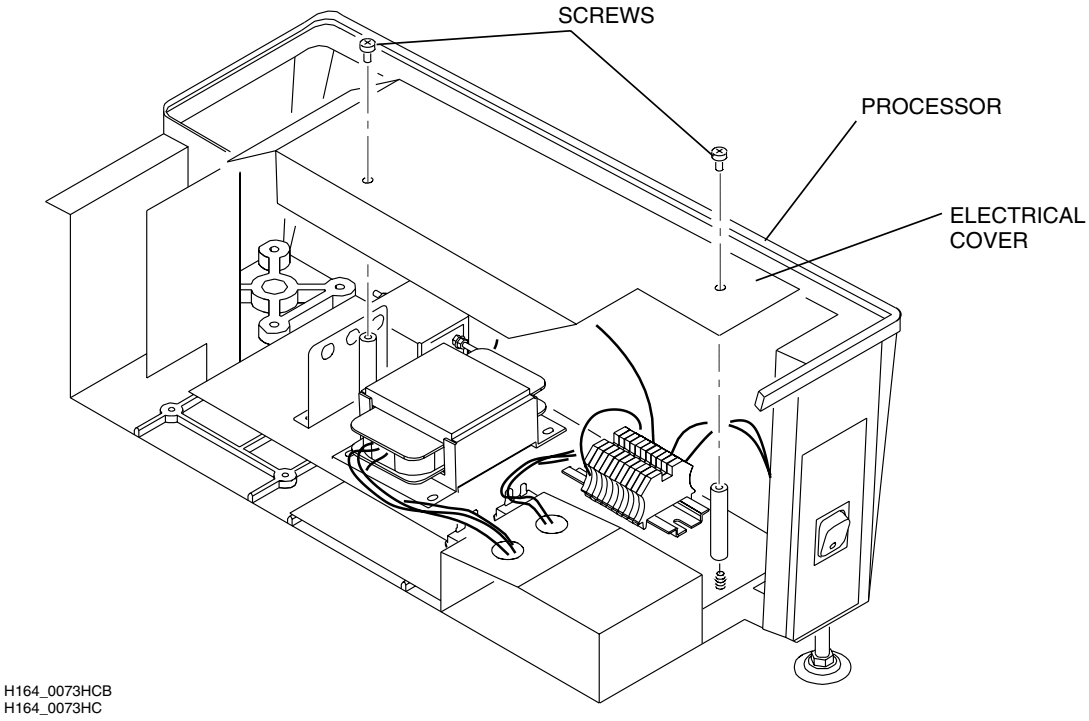
Warning

Prevent damage to personnel or equipment.

[10] Slowly open the top of the PROCESSOR.

[11] Hold the top of the PROCESSOR up to prevent the top of the PROCESSOR from falling.

[12] Feed the HOSES into the PROCESSOR.



[13] Remove:

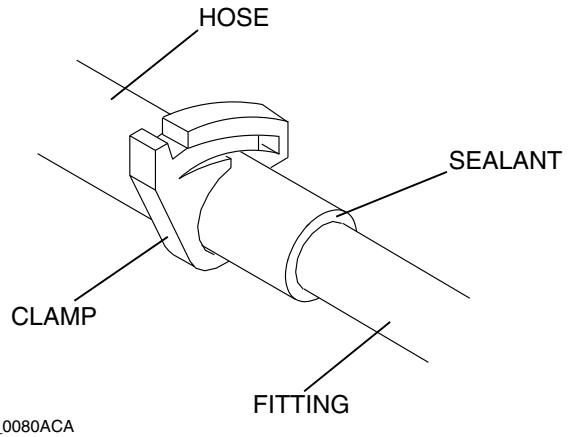
- 2 SCREWS
- ELECTRICAL COVER

Important

Be careful not to bend the HOSES when you close the PROCESSOR.

[14] Close the PROCESSOR, reverse Step 1 - Step 13.

Disconnecting the HOSES



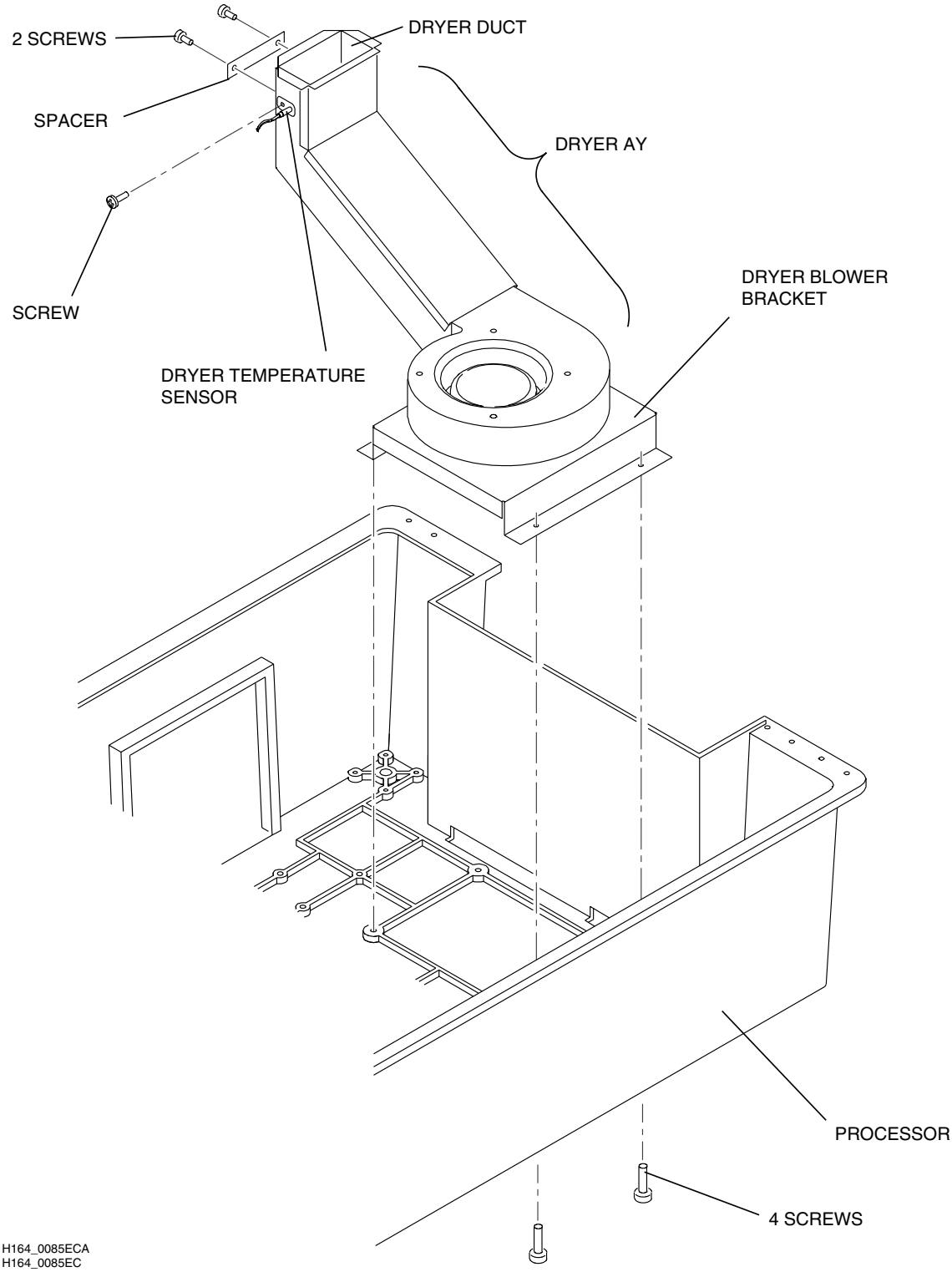
H164_0080ACA
H164_0080AC

[1] Remove from the FITTING:
- CLAMP
- HOSE
- SEALANT

[2] Apply new SEALANT to the FITTING.

[3] Install to the FITTING:
- HOSE
- CLAMP

Removing the DRYER



[1] Do Opening the PROCESSOR.

Important

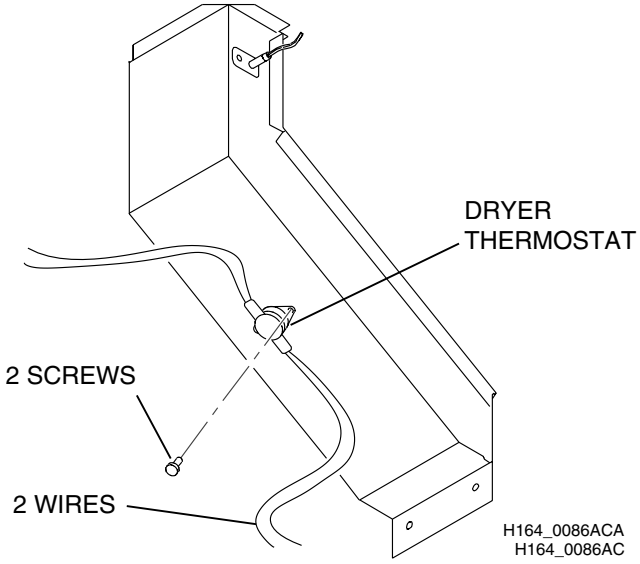
The 4 SCREWS are on the bottom of the PROCESSOR.

[2] Remove:

- 4 SCREWS
- 2 SCREWS for SPACER
- SPACER
- SCREW
- DRYER TEMPERATURE SENSOR

[3] Lift the DRYER AY and tilt toward the front of the PROCESSOR to remove.

Removing the DRYER THERMOSTAT



[1] Remove:

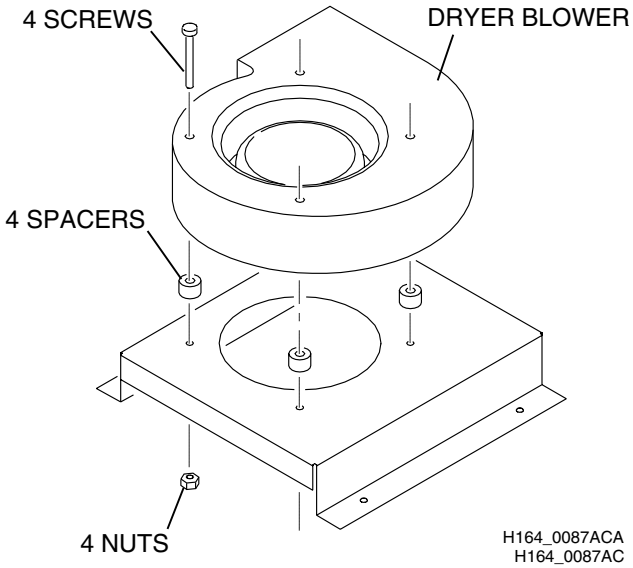
- 2 WIRES
- 2 SCREWS
- DRYER THERMOSTAT

[2] Discard the old DRYER THERMOSTAT.

[3] Install:

- new DRYER THERMOSTAT
- 2 SCREWS
- 2 WIRES

Removing the DRYER BLOWER



[1] Remove:

- 4 NUTS
- 4 SCREWS
- 4 SPACERS
- DRYER BLOWER

[2] Discard the old DRYER BLOWER.

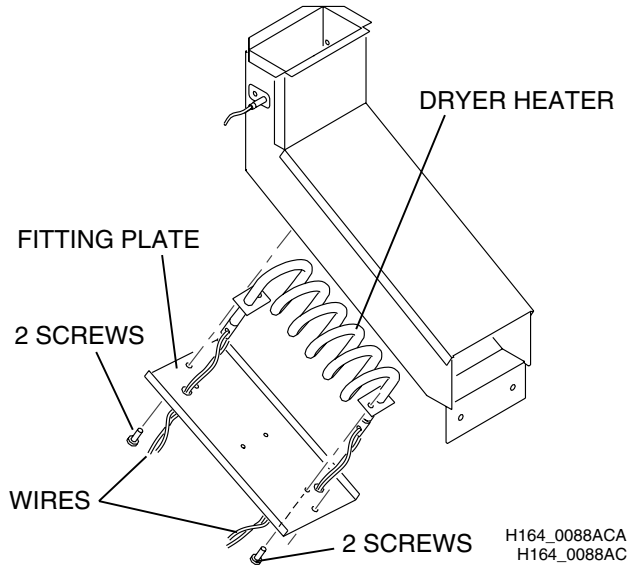
Important

- Do not use excessive force to tighten the SCREWS.
- The FAN must have free rotation.

[3] Install:

- new DRYER BLOWER
- 4 SPACERS
- 4 SCREWS
- 4 NUTS

Removing the DRYER HEATER



[1] Remove:

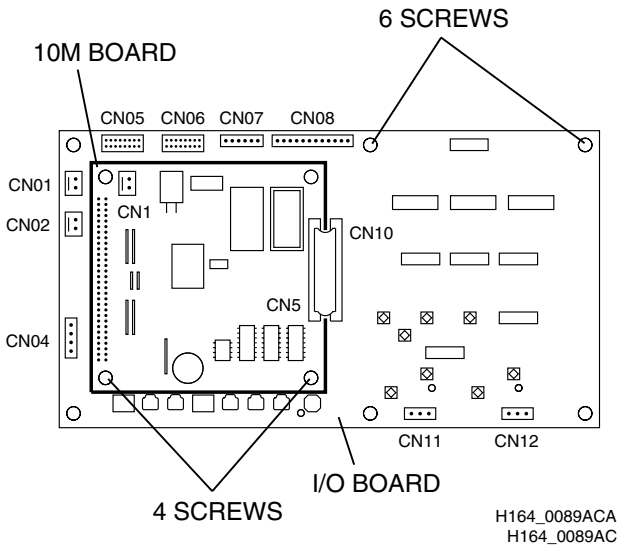
- 2 SCREWS
- FITTING PLATE
- 2 WIRES
- 2 SCREWS
- DRYER HEATER

[2] Discard the old DRYER HEATER.

[3] Install:

- new DRYER HEATER
- 2 SCREWS
- 2 WIRES
- 2 SCREWS
- FITTING PLATE

Removing the I/O BOARD



ESD
Possible damage from electrostatic discharge.

[1] Do Removing the CONTROL BOX COVER.

[2] Remove:

- CN01
- CN02
- CN04
- CN05
- CN06
- CN07
- CN08
- CN11
- CN12
- CN1
- CN5
- 6 SCREWS
- I/O BOARD
- 4 SCREWS
- 10M BOARD

[3] Discard the old I/O BOARD.

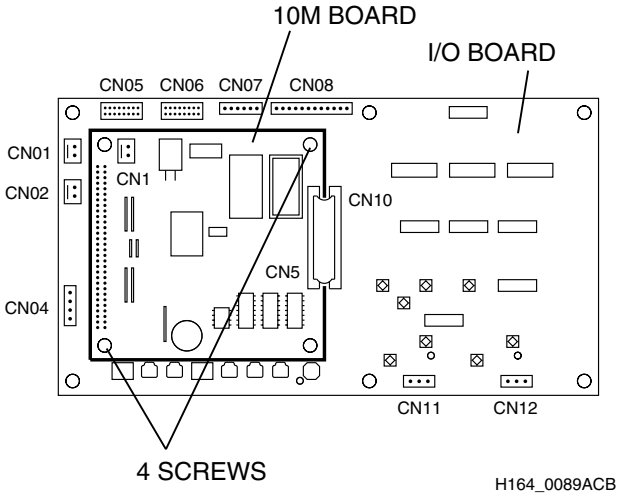
[4] Install:

- 10M BOARD on the new I/O BOARD
- 4 SCREWS
- new I/O BOARD
- 6 SCREWS
- CN12
- CN11
- CN08
- CN07
- CN06
- CN05
- CN04
- CN02
- CN01
- CN1
- CN5

[5] Check that the SWITCHES are set correctly. See Setting the Defaults of the SWITCHES.

[6] Install the CONTROL BOX COVER. See Removing the CONTROL BOX COVER.

Removing the 10M BOARD



ESD

Possible damage from electrostatic discharge.

[1] Do Removing the CONTROL BOX COVER.

[2] Remove from the I/O BOARD:

- CONNECTOR CN1
- CONNECTOR CN5
- 4 SCREWS
- 10M BOARD

[3] Discard the old 10M BOARD.

[4] Install:

- new 10M BOARD
- 4 SCREWS
- CONNECTOR CN1
- CONNECTOR CN5

[5] Install the CONTROL BOX COVER. See Removing the CONTROL BOX COVER.

Section 7: Diagnostics

Mechanical

Transport Malfunctions

Problem	Possible Cause	Action
Film skew	• You did not insert the film correctly. • The SPRINGS do not apply correct pressure to the ROLLERS.	• Insert film at the edge of the FEED TRAY. • Install the SPRINGS correctly.
Film jams	• The ROLLERS do not engage the film. • An AIR TUBE in the DRYER RACK is not installed correctly.	• Check the SPRINGS on the ROLLERS. • Install the AIR TUBE correctly.
You cannot insert the film when the ROLLERS rotate	The FEED TRAY is tacky with water or solution.	Check that the VENTILATION FAN is operating correctly.

Artifacts and Wrong Film Densities

Problem	Possible Cause	Action
Scratches on the film in the direction of film transport	• The ROLLERS have scratches or are dirty. • The GUIDES have scratches or are dirty.	• For black scratches, check and clean the ROLLERS in the DEVELOPER RACK. • For white marks, check and clean the GUIDES between the ENTRANCE ROLLERS and the FIXER RACK. • If necessary, install new GUIDES or ROLLERS.
Scratches at a 63 mm (2.56 in.) distance on the film in the direction of film transport	The ROLLERS have scratches or are dirty.	• For black scratches, check and clean the ROLLERS in the DEVELOPER RACK. • For white marks, check and clean the ROLLERS in the FIXER and DRYER RACKS. • If necessary, install new ROLLERS.
Random scratches	The FEED TRAY is dirty.	Clean the FEED TRAY.
Film fog	• The FEED TRAY COVER is not closed correctly. • The brightness in the room exceeds 1080 lux.	• Check that the FEED TRAY COVER is closed correctly. • Decrease the brightness to less than 1080 lux.
Film density is too high	• The developer contaminated the fixer. • The developer or fixer solutions are old or contaminated. • The DEVELOPER or FIXER REPLENISHMENT PUMP is malfunctioning.	• Drain the developer solution. • Use new solutions. • If necessary, install a new REPLENISHMENT PUMP.

Problem	Possible Cause	Action
Film density is too low	• Replenishment rate of the developer is too low. • The DEVELOPER REPLENISHMENT PUMP is malfunctioning. • The CHECK VALVE on the DEVELOPER REPLENISHMENT PUMP is malfunctioning. • The developer temperature is too low. • The developer or fixer solutions are old or contaminated.	• Check the replenishment rate of the developer. • Install a new DEVELOPER REPLENISHMENT PUMP. • Install a new CHECK VALVE. • Set the developer temperature. • Use new developer or fixer.
Films are not in focus	• Replenishment rate of the fixer is too low. • The FIXER REPLENISHMENT PUMP is malfunctioning. • The CHECK VALVE on the FIXER REPLENISHMENT PUMP is malfunctioning. • The fixer solution is old or contaminated.	• Check the replenishment rate. • Install a new FIXER REPLENISHMENT PUMP. • Install a new CHECK VALVE. • Use new fixer.
Films are not dry	• The temperature of the DRYER is not correct. • An AIR TUBE in the DRYER RACK is not in the correct position. • The DRYER HEATER is malfunctioning. • The DRYER BLOWER is malfunctioning. • The DRYER TEMPERATURE SENSOR is malfunctioning.	• Adjust the temperature of the DRYER. • Install the AIR TUBE correctly. • Install a new DRYER HEATER. • Install a new DRYER BLOWER. • Install a new DRYER TEMPERATURE SENSOR.

System Malfunctions

Problem	Possible Cause	Action
Solution is not moving in the DEVELOPER or FIXER TANK.	Air in the RECIRCULATION PUMP.	**Important** Do not drain the TANK. • Release some of the solution from the TANK. Remove either: – DEVELOPER STAND PIPE – FIXER STAND PIPE • Wait until the solution is moving in the TANK. • Insert and seat either: – DEVELOPER STAND PIPE – FIXER STAND PIPE • Add solution to the TANK. • If necessary, install a new RECIRCULATION PUMP.
Agitation of the developer in the DEVELOPER TANK is not correct.	The DEVELOPER RECIRCULATION PUMP is malfunctioning.	Install a new RECIRCULATION PUMP.
The ROLLERS are not parallel.	• A RECIRCULATION HOSE is blocked. • The PROCESSOR is tilted. • The ROLLERS do not rotate correctly. • The ROLLERS are dirty.	• Check the HOSES. • Level the PROCESSOR. • Check the RACKS and ROLLERS. • Clean the ROLLERS.
• The “High s” INDICATOR illuminates continually. • The “Ready” INDICATOR is not illuminated.	The developer temperature is above the set point.	Wait until the PROCESSOR is ready.
The “Ready” INDICATOR blinks when the PROCESSOR is energized.	The WASH TANK is filling.	Wait until the WASH TANK has filled.
• The “Low t” INDICATOR illuminates continually. • The “Ready” INDICATOR is not illuminated.	The developer temperature is below the set point.	Wait until the PROCESSOR is ready.
• The DRIVE MOTOR does not operate. • The ALARM emits a beep when film is inserted.	The TOP COVER: • is not seated correctly • is removed from the PROCESSOR	Place the TOP COVER correctly on PROCESSOR.

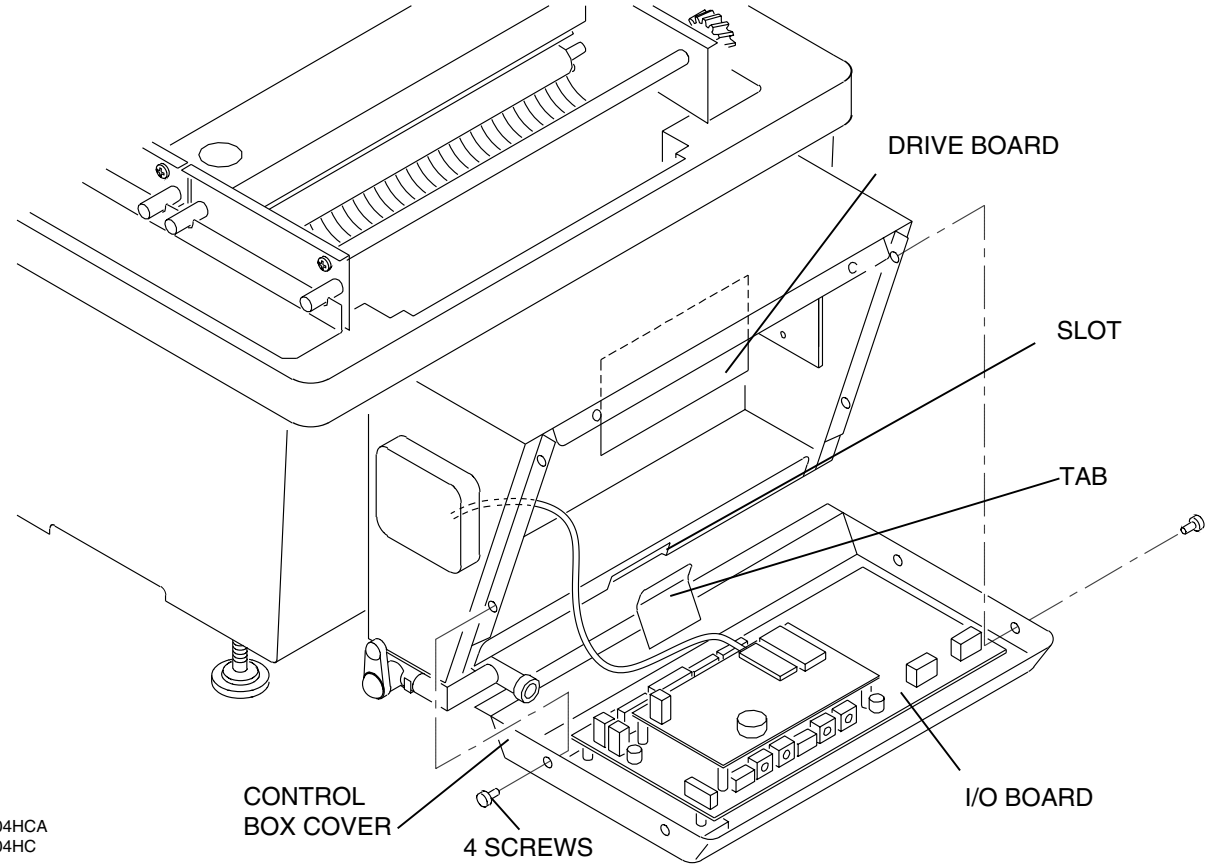
Problem	Possible Cause	Action
• The “Service” INDICATOR illuminates continually. • The “Low t” INDICATOR blinks. • The ALARM emits a beep. • The “Ready” INDICATOR is not illuminated.	The developer temperature circuit is malfunctioning.	• Determine the cause of the malfunction. • Repair the circuit.
• The “Service” INDICATOR illuminates continually. • The “High s” INDICATOR blinks. • The ALARM emits a beep. • The “Ready” INDICATOR is not illuminated.	The temperature circuit for the DRYER is malfunctioning.	• Determine the cause of the malfunction. • Repair the circuit.

Internal

Important

- When the PROCESSOR is in the diagnostic mode, you can actuate the systems and components of the PROCESSOR.
- The PROCESSOR has 8 diagnostic modes.
- The PROCESSOR has a corresponding mode for most of the systems of the PROCESSOR.
- When you initialize the PROCESSOR in the diagnostics mode, it automatically enters the first mode.
  - Use the “Dev” BUTTON on the CONTROL BOARD to advance to the next mode.
  - Use the “Fix” BUTTON to select the preceding mode.
- In some modes, you can press the “Run” BUTTON to operate components.

Checking the POWER SUPPLY



H164_0104HCA
H164_0104HC

ESD
Possible damage from electrostatic discharge.

[1] Remove:
- 4 SCREWS
- CONTROL BOX COVER

[2] Place the TAB into the SLOT.

[3] Measure the DC voltages on the DRIVE BOARD:

Position	Approximate Voltage
P1 (GND) to P2	+5 V DC
P1 (GND) to P4	+24 V DC

[4] Are the voltages correct?

Yes	No
Advance to Step 15.	Continue with Step 5.

[5] Check:
- FUSE F51
- FUSE F2
- FUSE F3

[6] Do the FUSES have continuity?

Yes	No
Continue with Step 7.	a. Install new FUSES. b. Continue with Step 7.

[7] Check the AC input voltage to the DRIVE BOARD at CONNECTOR CNP3:

Position	Approximate Voltage
PIN 1 to PIN 2	8 V AC
PIN 3 to PIN 4	24 V AC

[8] Are the voltages correct?

Yes	No
a. Install a new DRIVE BOARD. b. Continue with Step 9.	Continue with Step 9.

[9] Measure the AC output voltage on EMI FILTER NF51 at PINS 3 and 4.

[10] Does the voltage at NF51 match the site voltage?

Yes	No
Continue with Step 11.	Advance to Step 13.

[11] Check for correct operation of SWITCH SW51.

[12] Does SWITCH SW51 operate correctly?

Yes	No
a. Install a new TRANSFORMER. b. Advance to Step 15.	a. Install a new SWITCH SW51. b. Continue with Step 13.

[13] Measure the AC input voltage on EMI FILTER NF51 at PINS 1 and 2.

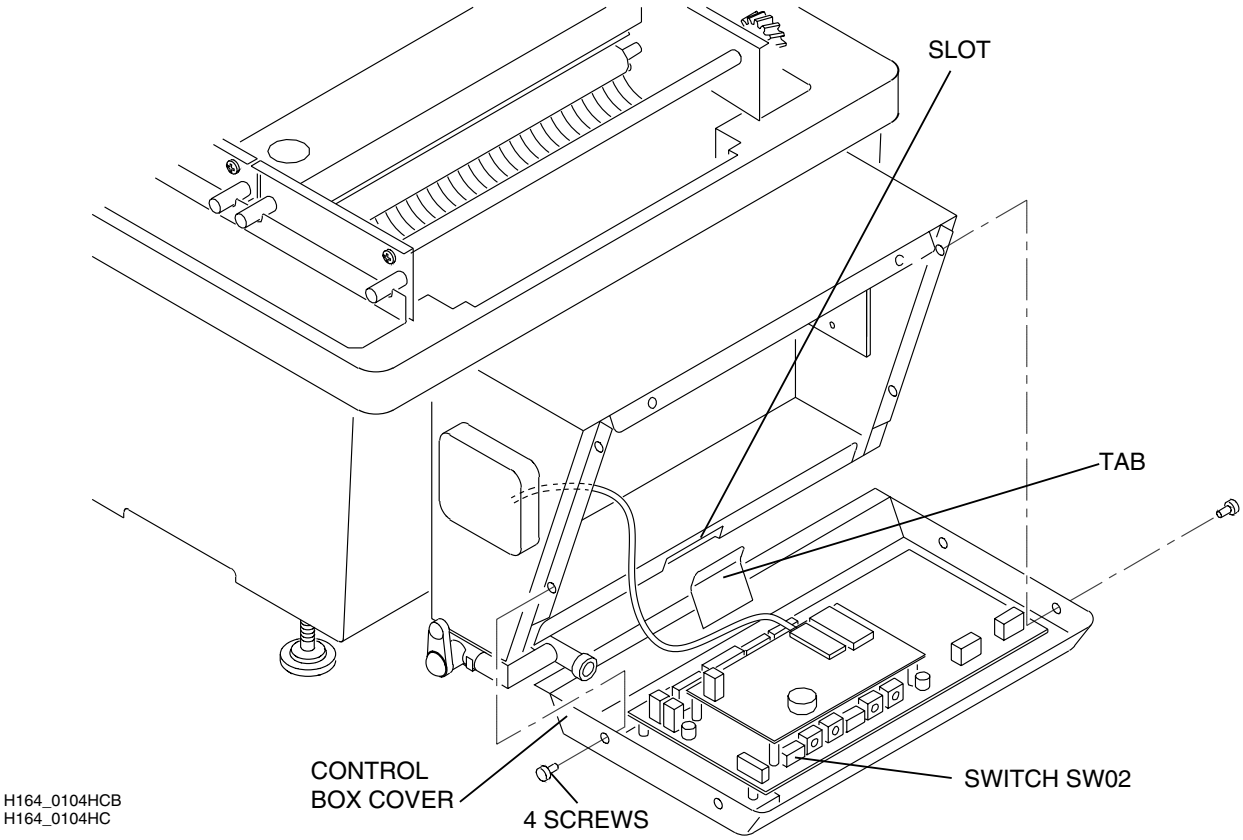
[14] Does the voltage at NF51 match the site voltage?

Yes	No
a. Install a new EMI FILTER. b. Continue with Step 15.	a. Call the service person to repair the main power. b. Return to Step 3.

[15] Install:

- CONTROL BOX COVER
- 4 SCREWS

Setting the Diagnostic Modes



Warning
Dangerous Voltage

[1] De-energize the PROCESSOR.

ESD
Possible damage from electrostatic discharge.

[2] Remove:
- 4 SCREWS
- CONTROL BOX COVER

[3] Place the TAB into the SLOT.

[4] Locate SWITCH SW02.

[5] Move DIP SWITCH SW02-4 to the “ON” position.

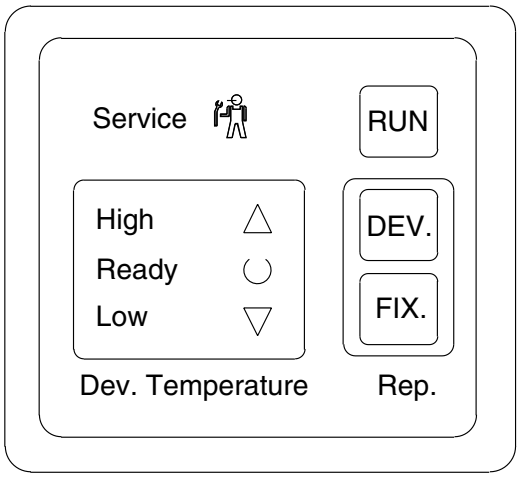
Warning
Dangerous Voltage

[6] Energize the PROCESSOR.

Note
- The PROCESSOR enters mode 1.
- The ALARM should emit 2 or 3 rapid beeps, then emit 3 more long beeps.
- If the ALARM does not emit the rapid beeps, the I/O BOARD is malfunctioning.

[7] If the ALARM emits a continual sound, advance to Checking the TEMPERATURE SENSOR.

[8] To diagnose a problem with the ENTRANCE SENSOR BOARD, advance to Checking the ENTRANCE SENSOR BOARD.



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[9] Use the “DEV” BUTTON on the CONTROL BOARD to select the mode and check the other components:

To Check:	Press the “DEV” BUTTON:	Mode	Advance to Procedure:
DEVELOPER HEATER	1 time	2	Checking the DEVELOPER HEATER
DRYER HEATER	2 times	3	Checking the DRYER HEATER
DRYER BLOWER	2 times	3	Checking the DRYER BLOWER
DEVELOPER REPLENISHMENT and RECIRCULATION PUMPS	3 times	4	Checking the DEVELOPER PUMPS
FIXER RECIRCULATION and REPLENISHMENT PUMPS	4 times	5	Checking the FIXER PUMPS
WATER SOLENOID VALVE	5 times	6	Checking the WATER SOLENOID VALVE
COVER INTERLOCK SWITCHES	6 times	7	Checking the COVER INTERLOCK SWITCHES
DRIVE MOTOR	7 times	8	Checking the DRIVE MOTOR

[10] To begin at mode 1 again:

(a) De-energize the PROCESSOR.

(b) Energize the PROCESSOR.

(c) Do Step 9 again.

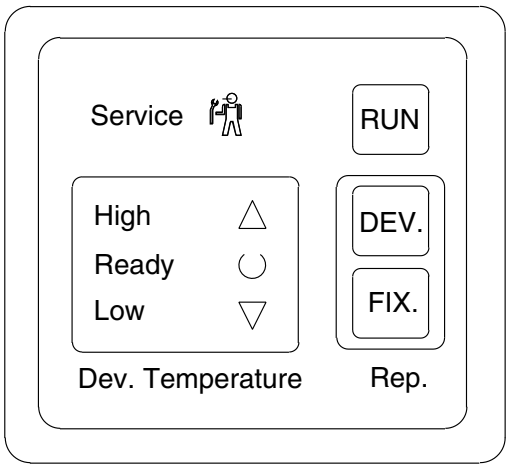
[11] When you complete the diagnostics:

(a) De-energize the PROCESSOR.

(b) Move DIP SWITCH SW02-4 to the “OFF” position.

(c) Install the CONTROL BOX COVER. See Removing the CONTROL BOX COVER.

Checking the TEMPERATURE SENSOR



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[1] Enter mode 1. See Setting the Diagnostic Modes.

[2] Does the ALARM emit 2 or 3 rapid beeps then 3 long beeps?

Yes	No
a. The TEMPERATURE SENSORS are operating correctly. b. Continue with Step 3.	Continue with Step 3.

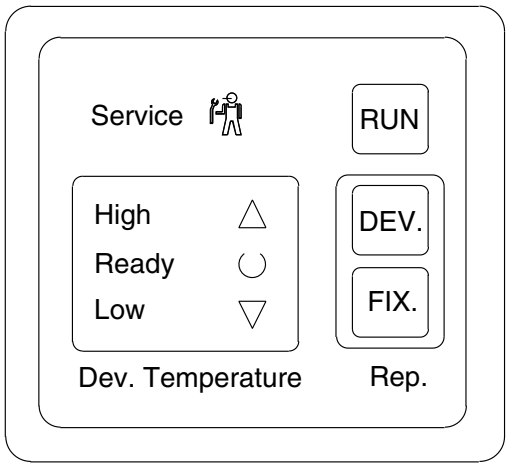
Important

The resistance of the TEMPERATURE SENSORS should be approximately 5.4 k ohm at 22°C (75°F).

[3] If the ALARM emits a continual sound, observe the CONTROL BOARD:

“High s” blinks:	“Low t” blinks:
a. Check the DRYER TEMPERATURE SENSOR SE52 for: • open circuit • short circuit b. If necessary, install a new DRYER TEMPERATURE SENSOR SE52.	a. Check the DEVELOPER TEMPERATURE SENSOR SE51 for: • open circuit • short circuit b. If necessary, install a new DEVELOPER TEMPERATURE SENSOR SE51.

Checking the ENTRANCE SENSOR BOARD



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[1] Enter mode 1. See Setting the Diagnostic Modes.

[2] Observe the “Ready” INDICATOR during Step 3 and Step 4.

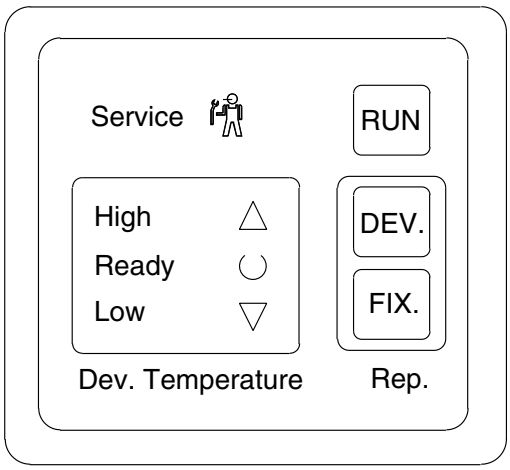
[3] Block one of the SENSORS on the ENTRANCE SENSOR BOARD.

[4] Block the other SENSOR on the ENTRANCE SENSOR BOARD.

[5] Does the “Ready” INDICATOR illuminate when you block the SENSORS in both Step 3 and Step 4?

Yes	No
The ENTRANCE SENSOR BOARD is operating correctly.	Install a new ENTRANCE SENSOR BOARD.

Checking the DEVELOPER HEATER



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[1] Enter mode 2. See Setting the Diagnostic Modes.

[2] Observe LED 9 on the DRIVE BOARD.

[3] Press the “RUN” BUTTON on the CONTROL BOARD.

Note

The DEVELOPER HEATER and LED 9 on the DRIVE BOARD will actuate for 0.2 seconds.

[4] Does LED 9 illuminate for 0.2 seconds?

Yes	No
Continue with Step 5.	a. Install a new I/O BOARD. b. Continue with Step 5.

[5] If LED 9 illuminates and the DEVELOPER HEATER does not actuate, check the resistance of DEVELOPER HEATER H51:

PROCESSOR	H51 Resistance, Ohms
1000A	30 - 40
1000J	25 - 35
1000	150 - 170

[6] Is the resistance correct?

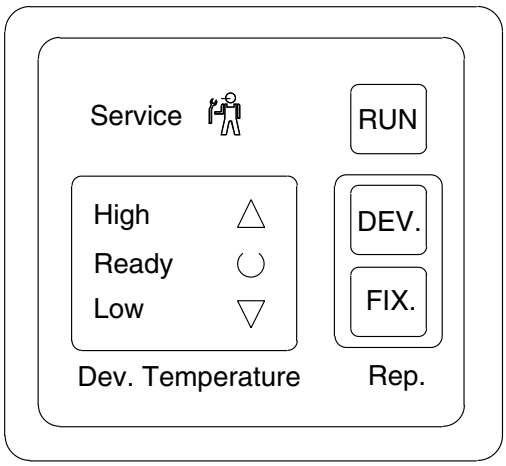
Yes	No
Continue with Step 7.	Install a new DEVELOPER HEATER.

[7] Check that the resistance of DEVELOPER HEATER OVERTEMPERATURE THERMOSTAT SW52 is approximately 0 Ohms.

[8] Is the resistance correct?

Yes	No
Install a new DEVELOPER HEATER RELAY SSR51.	Install a new DEVELOPER HEATER OVERTEMPERATURE THERMOSTAT SW52.

Checking the DRYER HEATER



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[1] Enter mode 3. See Setting the Diagnostic Modes.

[2] Observe LED 8 on the DRIVE BOARD.

[3] Press the “RUN” BUTTON on the CONTROL BOARD.

Note

The circuit for the DRYER HEATER and LED 8 on the DRIVE BOARD will actuate for 0.2 seconds.

[4] Does LED 8 illuminate for 0.2 seconds?

Yes	No
Continue with Step 5.	Install a new I/O BOARD.

[5] Remove the SIDE COVER of the PROCESSOR BASE for access to the components of the DRYER HEATER.

[6] If LED 8 illuminates and the DRYER HEATER does not actuate, check the resistance of DRYER HEATER H52:

PROCESSOR	H52 Resistance, Ohms
1000A	12 - 18
1000J	52 - 62
1000	52 - 62

[7] Is the resistance correct?

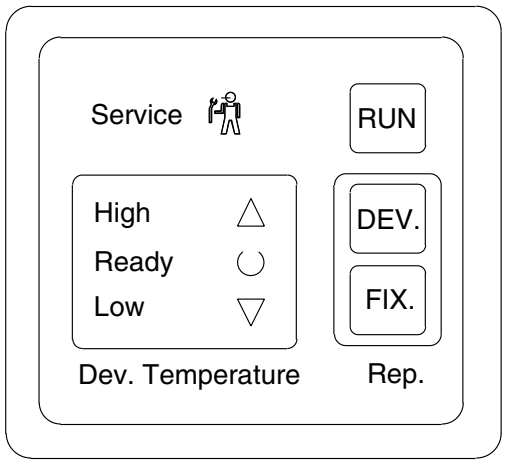
Yes	No
Continue with Step 8.	Install a new DRYER HEATER H52.

[8] Check that the resistance of DRYER HEATER OVERTEMPERATURE THERMOSTAT SW53 is approximately 0 ohms.

[9] Is the resistance correct?

Yes	No
Install a new DRYER HEATER RELAY SSR52.	Install a new DRYER HEATER OVERTEMPERATURE THERMOSTAT SW53.

Checking the DRYER BLOWER



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[1] Enter mode 3. See Setting the Diagnostic Modes.

[2] Observe LED 10 on the DRIVE BOARD.

[3] Press and hold the “RUN” BUTTON on the CONTROL BOARD.

Note

- The fast speed circuit for the DRYER BLOWER will actuate.
- LED 10 on the DRIVE BOARD will illuminate continually when the “RUN” BUTTON is held.

[4] Release the “RUN” BUTTON.

Note

- The slow speed circuit for the DRYER BLOWER will actuate continually when the “RUN” BUTTON is released.
- LED 10 will illuminate with less brightness.

[5] If LED 10 does not illuminate, check for control signals from the I/O BOARD:

Signal	Position on DRIVE BOARD	Voltage
DRYER ON	P1 (GND) to PIN 5 on U1	0 - 1 V DC
DRYER BLOWER HIGH	P1 (GND) to PIN 11 on U1	0 - 1 V DC
DRYER BLOWER LOW	P1 (GND) to PIN 11 on U1	4 - 5 V DC

[6] Are the control signals correct?

Yes	No
Continue with Step 7.	a. Check: • I/O BOARD • I/O BOARD/DRIVE BOARD b. If necessary, install a new part.

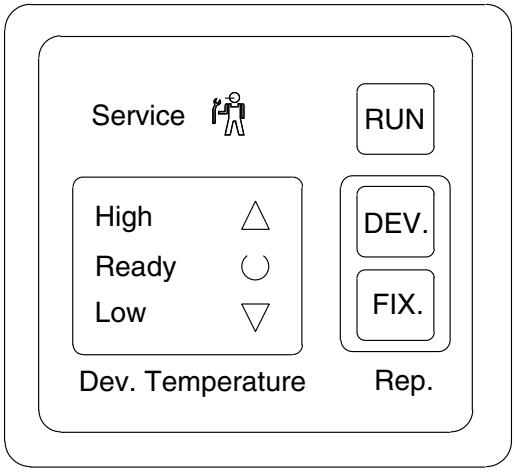
[7] If LED 10 illuminates and the DRYER BLOWER does not operate, check the voltage of the DRYER BLOWER:

Signal	Position on DRIVE BOARD	Voltage
DRYER BLOWER HIGH	P1 (GND) to P3	23 - 24 V DC
DRYER BLOWER LOW	P1 (GND) to P3	13 - 15 V DC

[8] Are the voltages correct?

Yes	No
Install a new DRYER BLOWER.	Install a new DRIVE BOARD.

Checking the DEVELOPER PUMPS



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[1] Enter mode 4. See Setting the Diagnostic Modes.

Caution

Operating the PUMPS excessively without solution might cause damage to the PUMPS.

[2] Press and hold the “RUN” BUTTON on the CONTROL BOARD.

Note

Holding the “RUN” BUTTON:

- Actuates the DEVELOPER RECIRCULATION PUMP and illuminates LED 2
- Actuates the DEVELOPER REPLENISHMENT PUMP and illuminates LED 4

[3] Do LED 2 and LED 4 illuminate?

Yes	No
Continue with Step 4.	a. Check: • I/O BOARD • I/O BOARD/DRIVE BOARD CABLE b. If necessary, install a new part.

[4] If LED 2 and LED 4 illuminate and the PUMPS do not operate, check FUSE F1 on the DRIVE BOARD.

[5] Does FUSE F1 have continuity?

Yes	No
Continue with Step 6.	a. Install a new FUSE. b. Continue with Step 6.

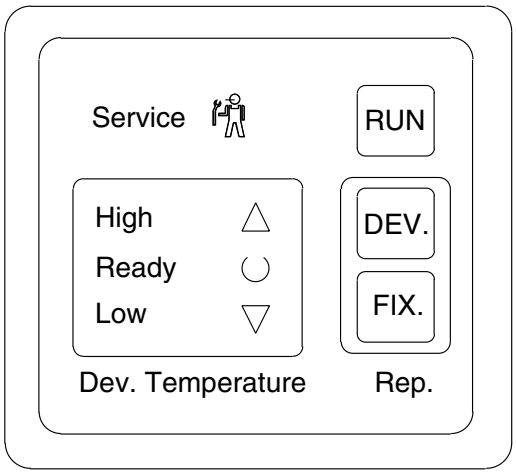
[6] Check the output signal for the DEVELOPER PUMP CIRCUITS on the DRIVE BOARD:

Signal	Position on DRIVE BOARD	Voltage
DEVELOPER RECIRCULATION PUMP	PIN 15 to PIN 3 on CN2	approximately 100 V AC
DEVELOPER REPLENISHMENT PUMP	PIN 19 to PIN 7 on CN2	approximately 100 V AC

[7] Are the voltages correct?

Yes	No
a. Check the PUMP. b. If necessary, install a new PUMP.	a. Check: • SOLID STATE RELAY SSR2 • SOLID STATE RELAY SSR4 b. If necessary, install a new SOLID STATE RELAY.

Checking the FIXER PUMPS



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[1] Enter mode 5. See Setting the Diagnostic Modes.

Caution

Operating the PUMPS excessively without solution might cause damage to the PUMPS.

[2] Press and hold the “RUN” BUTTON on the CONTROL BOARD.

Note

Holding the “RUN” BUTTON:

- Actuates the FIXER RECIRCULATION PUMP and illuminates LED 3
- Actuates the FIXER REPLENISHMENT PUMP and illuminates LED 5

[3] Do LED 3 and LED 5 illuminate?

Yes	No
Continue with Step 4.	a. Check: • I/O BOARD • I/O BOARD/DRIVE BOARD CABLE b. If necessary, install a new part.

[4] If LED 3 and LED 5 illuminate and the PUMPS do not operate, check FUSE F1 on the DRIVE BOARD.

[5] Does FUSE F1 have continuity?

Yes	No
Continue with Step 6.	a. Install a new FUSE. b. Continue with Step 6

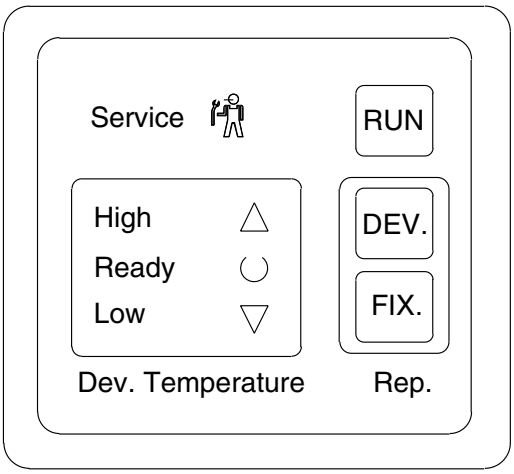
[6] Check the output signal for the FIXER PUMP CIRCUITS on the DRIVE BOARD:

Signal	Position on DRIVE BOARD	Voltage
FIXER RECIRCULATION PUMP	PIN 5 to PIN 17 on CN2	approximately 100 V AC
FIXER REPLENISHMENT PUMP	PIN 21 to PIN 9 on CN2	approximately 100 V AC

[7] Are the voltages correct?

Yes	No
a. Check the PUMP. b. If necessary, install a new PUMP.	a. Check: • SOLID STATE RELAY SSR3 • SOLID STATE RELAY SSR5 b. If necessary, install a new SOLID STATE RELAY.

Checking the WATER SOLENOID VALVE



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[1] Enter mode 6. See Setting the Diagnostic Modes.

[2] Press and hold the “RUN” BUTTON on the CONTROL BOARD.

Note

- Pressing and holding the “RUN” BUTTON:
  - actuates the circuit for the WATER SOLENOID
  - illuminates LED 11 on the DRIVE BOARD
- LED 6 might illuminate for 0.5 seconds, but LED 6 is not used in this evaluation.

[3] If the WATER SOLENOID VALVE does not operate, check the input voltages:

Position on the DRIVE BOARD	“RUN” BUTTON	Voltage
P1 (GND), PIN 1 on U1	pressed	0 - 1 V DC
P1 (GND), PIN 1 on U1	released	4 - 5 V DC

[4] Are the voltages correct?

Yes	No
Continue with Step 5.	a. Check: • I/O BOARD • I/O BOARD/DRIVE BOARD CABLE b. If necessary, install a new part.

[5] If the input voltages are correct and the SOLENOID VALVE does not operate, check the output voltages:

Position on the DRIVE BOARD	“RUN” BUTTON	Voltage
PIN 1 to PIN 2 on CNP6 on the DRIVE BOARD	pressed	9 V DC, following a 24 V DC pulse
PIN 1 to PIN 2 on CNP6 on the DRIVE BOARD	released	0 V DC

[6] Are the output voltages correct?

Yes	No
a. Check the WATER SOLENOID VALVE. b. If necessary, install a new WATER SOLENOID VALVE.	a. Check the DRIVE BOARD. b. If necessary, install a new DRIVE BOARD.

Checking the COVER INTERLOCK SWITCHES

[1] Enter mode 7. See Setting the Diagnostic Modes.

[2] Install the COVER on the PROCESSOR.

[3] Check that LED 7 on the DRIVE BOARD is illuminated.

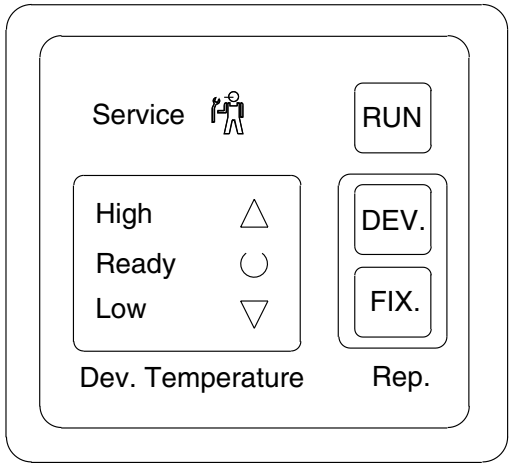
[4] If LED 7 is not illuminated, measure the resistance of the COVER INTERLOCK SWITCHES.

[5] Remove the COVER and make the measurements again:

SWITCH	Position	Resistance
SW55	PIN 1 and PIN 2 at CNP10 on the DRIVE BOARD	• Approximately 0 Ohms with the COVER installed • Open circuit without the COVER
SW54	PIN 1 and PIN 2 at CNP11 on the DRIVE BOARD	• Approximately 0 Ohms with the COVER installed • Open circuit without the COVER

[6] If the resistances are not correct, install new COVER INTERLOCK SWITCHES.

Checking the DRIVE MOTOR



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[1] Do Checking the COVER INTERLOCK SWITCHES.

[2] Install the COVER on the PROCESSOR.

[3] Enter mode 7.

[4] Press and hold the “RUN” BUTTON on the CONTROL BOARD.

Note

Pressing and holding the “RUN” BUTTON operates the DRIVE MOTOR and illuminates LED 1 on the DRIVE BOARD.

[5] Does LED 1 illuminate?

Yes	No
Continue with Step 6.	a. Check: • I/O BOARD • I/O BOARD/DRIVE BOARD CABLE b. If necessary, install a new part.

[6] If LED 1 illuminates but the DRIVE MOTOR does not operate, check the voltage of the DRIVE MOTOR:

Position	Voltage
PIN 1 and PIN 2 on DRIVE BOARD CONNECTOR CN2	Approximately 100 V AC

[7] Is the voltage correct?

Yes	No
a. Check the DRIVE MOTOR. b. If necessary, install a new DRIVE MOTOR.	Continue with Step 8.

[8] Is the voltage between PIN 1 and PIN 14 on DRIVE BOARD CONNECTOR CN2 approximately 100 V AC?

Yes	No
a. Check: • RELAY RY51 • COVER INTERLOCK CIRCUIT b. If necessary, install a new part.	a. Check RELAY SSR1 on the DRIVE BOARD. b. If necessary, install a new RELAY.

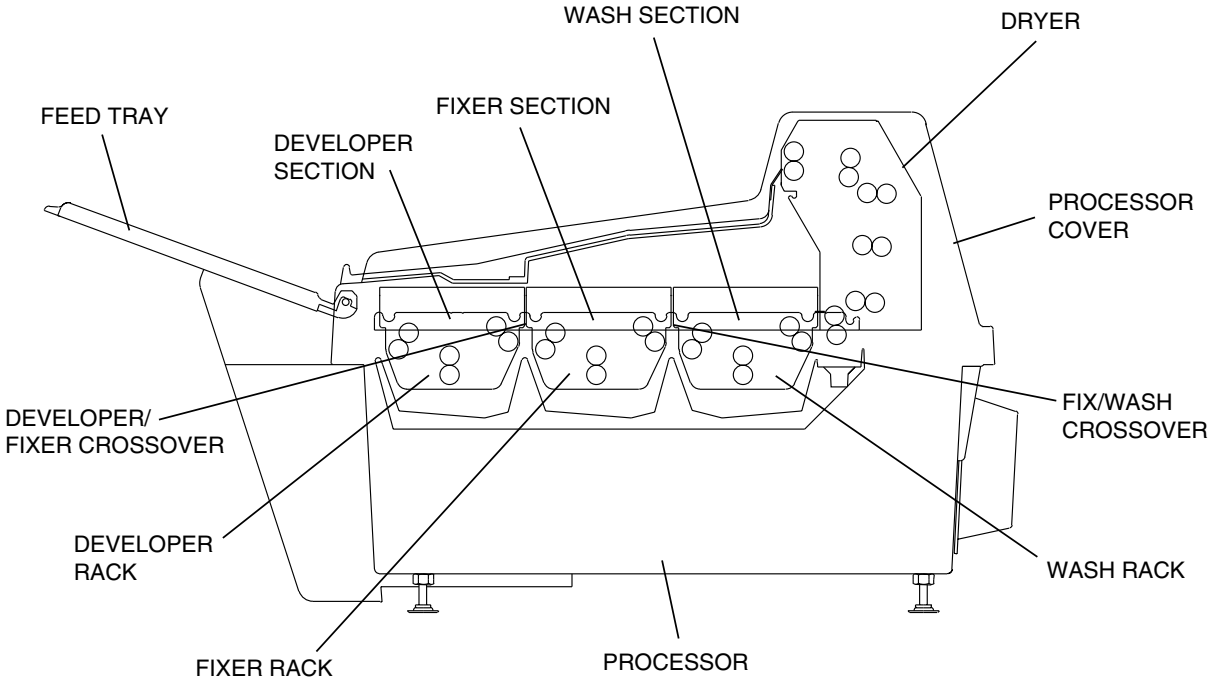
Section 8: Theory

Introduction

The *Kodak X-Omat* 1000, 1000A and 1000J PROCESSORS are automatic PROCESSORS. The PROCESSORS are easy to operate and maintain.

- The 1000 PROCESSOR uses 220, 230 or 240 volt, 50/60 Hz AC power.
- The 1000A PROCESSOR uses 120 volt, 50/60 Hz AC power.
- The 1000J PROCESSOR uses 100 volt, 50/60 Hz AC power.

Film Processing and Functions of the PROCESSOR



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H164_0043HC

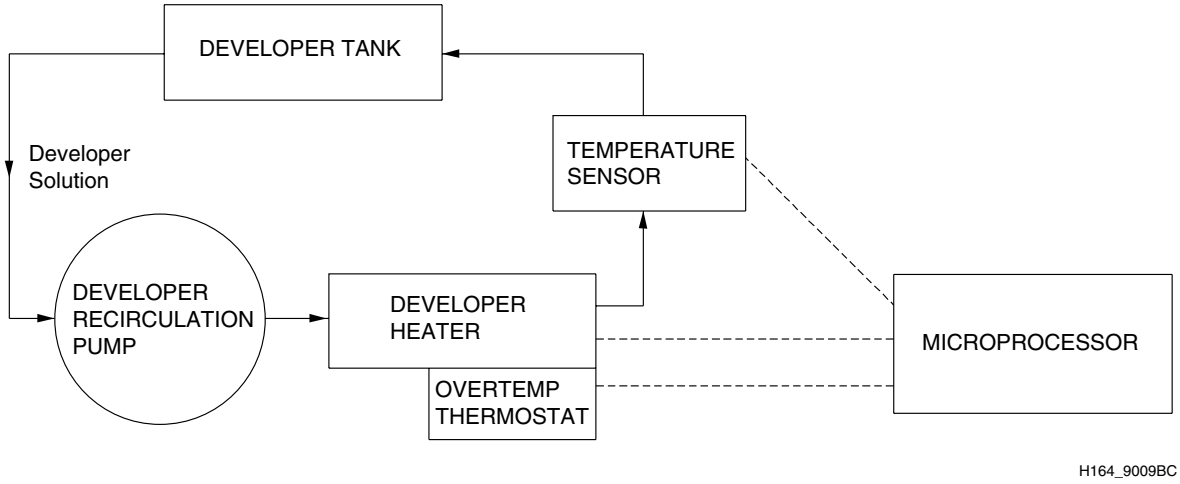
Film Processing Step	Section	Component Descriptions and Functions
The developer solution changes the latent image on the film into a visible image.	DEVELOPER	• DEVELOPER TANK - holds the developer solution. • DEVELOPER RACK - has GEARS and ROLLERS to move the film through the developer solution. An EVAPORATION COVER prevents oxidation of developer solution. • DEVELOPER HEATER - heats the developer solution to the set point temperature. • DEVELOPER RECIRCULATION PUMP - continually moves the developer solution through the DEVELOPER TANK. • DEVELOPER REPLENISHMENT PUMP - adds new developer solution to the DEVELOPER TANK from outside the PROCESSOR when the solution is used in developing film. • A CROSSOVER RACK moves film from the DEVELOPER RACK to the FIXER RACK.
The fixer solution stops the continued developing of the visible image and removes unexposed silver halide crystals from the film.	FIXER	• FIXER TANK - holds the fixer solution. • FIXER RACK - has GEARS and ROLLERS to move the film through the fixer solution. • FIXER RECIRCULATION PUMP - continually moves the fixer solution through the FIXER TANK. • FIXER REPLENISHMENT PUMP - adds new fixer solution to the FIXER TANK from outside the PROCESSOR when the solution is used. • A CROSSOVER RACK moves film from the FIXER RACK to the WASH RACK.
Wash water rinses both developer and fixer solutions from the film.	WASH	• WASH TANK - holds the wash water. • WASH RACK - has GEARS and ROLLERS to move the film through the wash water. • WATER SOLENOID - controls the flow of wash water to the WASH TANK from outside the PROCESSOR.
The film is dried to allow handling.	DRYER	• DRYER RACK - has ROLLERS, GEARS and a DRIVE CHAIN to move the film through the DRYER. • DRYER HEATER - heats the air to the set point temperature. • DRYER BLOWER - moves air through the HEATER and the DRYER RACK.

Components of the PROCESSOR

Temperature Controls

The PROCESSOR has 2 separate temperature control systems:

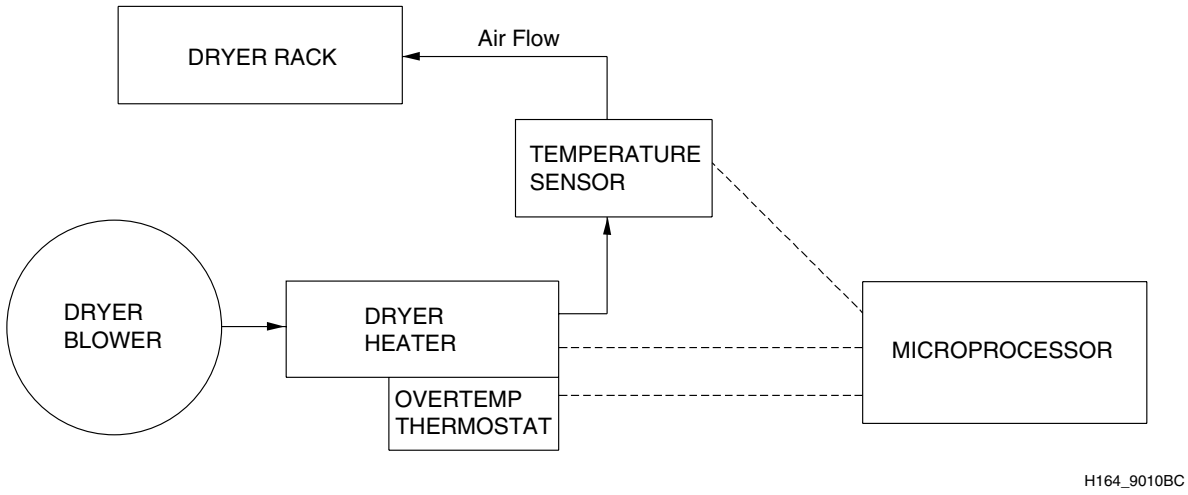
DEVELOPER HEATER



The developer set point temperature is adjusted by service personnel only. The DEVELOPER HEATER includes:

- RECIRCULATION PUMP
- DEVELOPER HEATER
- THERMOSTAT
- DEVELOPER TEMPERATURE SENSOR

DRYER HEATER



The set point temperature of the DRYER can be adjusted by the operator using the DRYER TEMPERATURE CONTROL KNOB on the front of the PROCESSOR. The DRYER HEATER includes:

- DRYER BLOWER
- DRYER HEATER
- THERMOSTAT
- DRYER TEMPERATURE SENSOR

Drive System

The drive system in the PROCESSOR drives the GEARS and ROLLERS in the RACKS to move film from the FILM TRAY through the PROCESSOR to the TOP COVER at a uniform speed. The drive system includes:

- DRIVE MOTOR - has a HELICAL GEAR which engages the DRIVE SHAFT.
- DRIVE SHAFT - has a DRIVE GEAR which engages the HELICAL GEAR on the DRIVE MOTOR and WORM GEARS which engage the GEARS on the RACKS.

Replenishment System

The replenishment system adds new developer and fixer solution to the TANKS when the solutions are used in processing film. REPLENISHMENT PUMPS move solutions to the TANKS from outside the PROCESSOR. The replenishment system operates automatically when the film feeds into the PROCESSOR, or the operator can press the “Dev” or “Fix” BUTTONS which manually starts one replenishment cycle of that system. The replenishment rates are adjusted by service personnel only.

The PROCESSOR uses a WATER SOLENOID VALVE to control the flow of wash water to the WASH TANK from outside the PROCESSOR. The SOLENOID VALVE operates automatically when the film feeds into the PROCESSOR.

Vent System

A VENTILATION FAN provides air flow through the PROCESSOR.

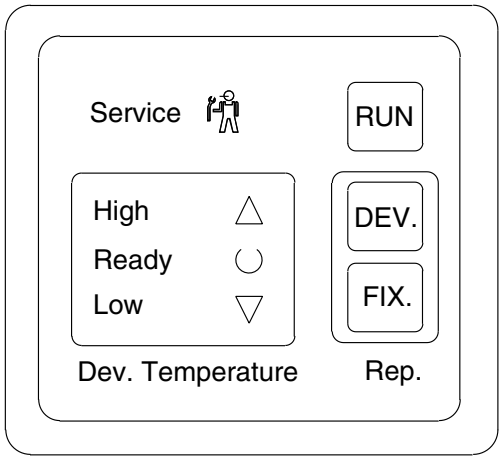
Control Systems

Energizing the PROCESSOR

Modes of the PROCESSOR

The PROCESSOR has 2 operating modes.

- In the Ready Mode, the PROCESSOR is energized and all systems are ready to process film.
- In the Standby Mode, the PROCESSOR is energized but the systems operate intermittently. The PROCESSOR automatically changes from the Ready Mode to the Standby Mode after 5 minutes. The PROCESSOR leaves the Standby Mode automatically when the operator inserts film, or manually when the “Run” BUTTON is pressed.



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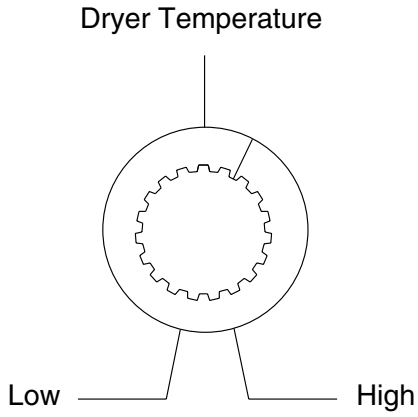

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Operator Controls

The following are operator controls and functions:

- ON/OFF POWER SWITCH - Energizes and de-energizes the PROCESSOR.
- DRYER TEMPERATURE CONTROL KNOB - Adjusts the air temperature of the DRYER.
- “Run” BUTTON - Manually starts one cycle of the film developing process and releases the PROCESSOR from the Standby mode.
- “Dev” BUTTON - Manually starts one cycle of the developer replenishment.
- “Fix” BUTTON - Manually starts one cycle of the fixer replenishment.

STATUS INDICATORS

There are 4 STATUS INDICATORS on the PROCESSOR:

- “Service” - Indicates a malfunction of the PROCESSOR.
- “High s” - Indicates the developer temperature is above the set point. It is also used to indicate some temperature control malfunctions. See Indications and Error Functions.
- “Ready” - Illuminates when the PROCESSOR is ready to develop film and blinks when it is developing film.
- “Low t” - Indicates the developer temperature is below the set point. It is also used to indicate some temperature control malfunctions. See Indications and Error Functions.

System Operations

Components of the PROCESSOR operate in different cycles when necessary.

Initializing Functions

When the PROCESSOR is energized:

- The DEVELOPER HEATER begins to operate, increasing the developer temperature to the set point.
- The “Low t” INDICATOR illuminates when the developer solution is below the set point temperature.
- DEVELOPER and Fixer Recirculation Pumps begin to operate. The PUMPS operate continuously for 5 minutes, until the PROCESSOR enters the Standby Mode.
- DEVELOPER and FIXER REPLENISHMENT PUMPS do not operate when the PROCESSOR is energized.
- The WATER SOLENOID operates for approximately 5 minutes, until the PROCESSOR enters the Standby Mode.
- The DRYER HEATER starts to operate, increasing the air temperature of the DRYER to the set point.
- The DRYER BLOWER operates at maximum speed for 5 minutes, until the PROCESSOR enters the Standby Mode. The DRYER BLOWER then operates at a slow speed.
- The DRIVE MOTOR starts to operate. It operates continually for 5 minutes, until the PROCESSOR enters the Standby Mode.
- The “Ready” INDICATOR does not illuminate continuously until the PROCESSOR is ready to develop film.
- The STANDBY TIMER is reset.

Operation Functions when Processing Film

The PROCESSOR is ready to process film when the “Ready” INDICATOR is illuminated continuously. The operator inserts exposed film into the FEED TRAY.

When film is inserted into the FEED TRAY:

- The FILM SENSOR releases the PROCESSOR from Standby Mode, if necessary.
- The ALARM emits a beep. It will emit another beep when the PROCESSOR is ready for another film.
- The “Ready” INDICATOR blinks. The “Ready” INDICATOR illuminates continually when the PROCESSOR is ready to develop another film.
- The DRIVE MOTOR operates continually when film moves through the PROCESSOR.
- DEVELOPER and FIXER REPLENISHMENT PUMPS start and operate only when necessary to replenish the chemistry in the PROCESSOR.
- The WATER SOLENOID operates continuously until the PROCESSOR enters the Standby Mode.
- The DRYER BLOWER changes from slow speed to fast speed.
- The DRYER HEATER increases the air temperature of the DRYER to the set point temperature.

Note

The sequence described above will also occur if the “Run” BUTTON on the PROCESSOR is pressed. The “Run” command starts the same sequence that the FILM SENSOR starts when it detects film.

Standby Mode Functions

The PROCESSOR enters the Standby Mode approximately 5 minutes after a film is processed and no more films are inserted.

When the PROCESSOR enters the Standby Mode:

- The DRIVE MOTOR operates intermittently for 25 seconds and stops for 5 seconds.
- The DEVELOPER and FIXER RECIRCULATION PUMPS operate intermittently for 5 seconds and stop for 5 seconds.
- If the PROCESSOR is set for replenishment in the Standby Mode, the DEVELOPER REPLENISHMENT PUMP operates for one replenishment cycle every 20 minutes.

- If the PROCESSOR is set for replenishment in the Standby Mode, the FIXER REPLENISHMENT PUMP operates for one replenishment cycle every 20 minutes.
- The WATER SOLENOID stops for 60 seconds, then operates intermittently for 10 seconds every 60 seconds.
- The DRYER BLOWER changes to slow speed.
- The DRYER HEATER decreases the air temperature of the DRYER to the low temperature set point.

Indications and Error Functions

The PROCESSOR uses the ALARM and INDICATORS to indicate system conditions and malfunctions.

Indication	Condition
• The “Low t” INDICATOR illuminates continually. • The “Ready” INDICATOR is not illuminated.	The developer temperature is below the set point.
• The “High s” INDICATOR illuminates continually. • The “Ready” INDICATOR is not illuminated.	The developer temperature is above the set point.
• The “Service” INDICATOR illuminates continually. • The “Low t” INDICATOR blinks. • The ALARM emits a beep. • The “Ready” INDICATOR is not illuminated.	The developer temperature circuit is broken.
• The “Service” INDICATOR illuminates continually. • The “High s” INDICATOR blinks. • The ALARM emits a beep. • The “Ready” INDICATOR is not illuminated.	The temperature circuit for the DRYER is broken.
• The “Ready” INDICATOR blinks when PROCESSOR is energized.	The WASH TANK is filling.
• Film will not enter the PROCESSOR. • The DRIVE MOTOR does not operate. • The ALARM emits a beep if a film is inserted.	The TOP COVER of the PROCESSOR is not seated correctly, or is removed from the PROCESSOR.

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